

AMATEUR RADIO

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

OCTOBER
1950

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EDITORIAL



The rapid post-war increase in the number of licensed Amateurs has reduced the elbow room available for operation on restricted bands when conditions are good.

The "Gentlemen's Agreement," providing for voluntary reservation of portion of each band for c.w. operation, was promoted by your Federal Council with a view to giving c.w. operators a channel comparatively free from phone QRM. Naturally the success of any plan of this nature depends upon the whole-hearted co-operation of the individual. Hence the success of the present plan rests with YOU and every other active Operator.

The major QRM problems in each and every band are created by:—"Inane Earbashing," "Splatter," and "Poor Operating Techniques."

"Inane Earbashing" we will leave to the conscience of the individuals concerned—perhaps when the housing shortage is overcome the aforesaid earbashers will be able to lean on the dividing fence once more.

"Splatter" can be avoided if every law abiding Amateur makes proper use of the monitor demanded by the conditions of his "Station Licence;" therefore no excuses should be professed or accepted for such offences.

"Poor Operating Technique" is only excusable if the offender is a newcomer to our ranks; however, observation indicates that the chief

offenders in this direction are experienced operators or the swaggering type, who satisfy their ego by adopting irregular and individual procedures, which are in many cases in somewhat doubtful taste. Unfortunately some of the younger members who join the Amateur ranks are apt to adopt this slap happy style rather than the more sober procedure designed to give everyone the maximum enjoyment of our hobby.

Federal Executive suggests that in order to promote goodwill and good operating, instead of advocating return to the "probationary period on c.w." (which can never be justified on technical grounds) each and every Amateur should:-

- Make a point of getting to know personally each of the new licensees (Radio Amateur type) in his district.
- Help all newcomers along the road to good operating instead of shunning them as if they were interlopers in our ranks merely because of slowness on the key or hesitancy in phone procedure.
- If unable to help your neighbour solve his technical problem, introduce him to someone who can do so.
- Practice the Amateur Code.

Let's make goodwill and good operating a certainty by adopting a co-operative attitude towards all fellow Amateurs, old and new alike.

FEDERAL EXECUTIVE

The Contents . . .

Logarithmic Compressor	3	The Eddystone "750" Communications Receiver	9
Extracting the Watts	6	Dx Notes	10
Abstracts from Overseas Magazines	7	Ionospheric Predictions for the Amateur Bands	10
Tribute from Postmaster General	8	Fifty Megacycles and Above	11
Moorabbin and District Radio Club's Honorary Membership Certificate	8	Federal, QSL, and Divisional Notes	13
Correspondence	20		

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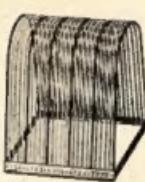
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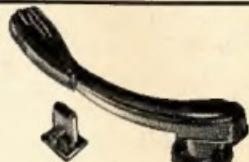
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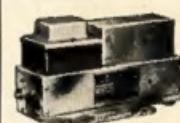
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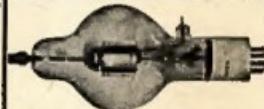
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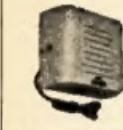
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VP7225—250v., 45 Ma.	£5/10/-
VP3225—32v., 250v., 45 Ma.	£6/13/6

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Central 4311

LOGARITHMIC COMPRESSOR

Aids in Preventing Overmodulation While Increasing Signal Effectiveness

Every phone man, at some time in his QRM-ridden life, has wished that he had a small switch available which would permit him magically to increase his power tenfold. This would be Utopia—from one kilowatt to ten kilowatts by pressing a button.

This button is now available, and it is mounted on the front of the Logarithmic Compressor. This unit will give an effective signal gain which is adjustable from a few db up to as much as ten db (ten to one in power).

The Logarithmic Compressor is an audio amplifier device which is inserted between your microphone and your present speech amplifier. Its function is to push up the average modulation level, with the result that high percentage modulation is assured at all times, regardless of the sound level reaching the microphone.

COMPRESSION VERSUS CLIPPING

Those familiar with clippers or clipping circuits can see that the Logarithmic Compressor is intended to do the same sort of job as a clipper. There is, however, an important difference between logarithmic compression as used in the Logarithmic Compressor and clipping.

Fig. 2 compares the characteristics of the two different systems. In either case the input wave suffers distortion, but the distortion caused by the clipping action of the ordinary diode type clipper (Fig. 2B) is worse for a given amount of signal compression than that caused by the logarithmic compression of a copper-oxide instrument rectifier (Fig. 2A).

Distortion present in either circuit will add "harshness" to speech signals and without further treatment would result in excessively broad signals. Therefore, any distorting type circuit should be followed by a suitable filter to prevent the high frequency products produced by this distortion from reaching the modulated stage. With such a filter much of the "harshness" will still be present but the radio frequency signal need not be broad. The harshness results from cross modulation (distortion) products that lie within the pass band of the filter.

The advantage of the logarithmic compression system is that the distortion is less severe (for a given amount of compression) than the clipper type, and this makes possible the use of a vastly simpler filter arrangement. Three "stages" of R-C type filtering used in the Logarithmic Compressor are as effective as more elaborate sharp-cut-off types of L-C filter virtually necessary with the clipper type of circuit.

Further, the transient response of the R-C type filter is such that no overshoot of signal peaks can occur. This is not the case with sharp-cut-off L-C filters. This means that the logarithmic compressor circuit with a properly designed R-C filter is superior to the ordinary

FEATURES—

- Provides 10 db increased effectiveness;
- Uses self-contained speech-range filter;
- Three tubes, including rectifier;
- Small size—space saving.

In keeping with our policy of re-printing worthwhile articles from overseas publications, we present the following article in "G.E. Ham Hints," May-June, 1950.

For those Hams who possess a modulator and speech amplifier, but desire the advantages of speech clipping, this unit will enable them to obtain the advantage of clipping without pulling their present gear about, as it is simply inserted between the microphone and pre-amplifier.

The 12AT7 high-mu twin triodes specified are at present difficult to obtain in Australia, but we understand they will be obtainable soon. The nearest equivalent is the 6SL7, and we would like to know how this circuit works out with these valves so that the information can be passed on to our readers.

clipper circuit followed by a sharp L-C filter. Repeat tests confirm this statement.

CIRCUIT DETAILS

With reference to Fig. 3 it will be seen that the first 12AT7 acts as a two stage audio amplifier to bring the signal from the microphone to a sufficient level so that the compression circuit itself operates at the proper level. Resistor R1 in the first stage has been added as a precaution against r.f. feedback.

Special care has been taken to attenuate low audio frequencies prior to compression. Doing this gives a well balanced speech response as well as minimising much of the distortion caused by cross-modulation between the low speech frequencies and the intelligence-bearing high speech frequencies. The values of condensers C2, C3, and C4 are chosen to attenuate the low frequencies adequately before speech compression. Condensers C7 and C9 serve the same purpose after compression has taken place.

Resistor R4, by varying the signal input to the second section of the first 12AT7, enables control of the amount of compression.

The audio transformer, T1, is necessary because the limiting circuit must be fed by a low-impedance, low-resistance source. Using the centre tap on this transformer, accomplishes this function.

The actual limiting or compression circuit consists only of R7 and W, the latter being two sections of a copper-oxide instrument rectifier. Resistors R8 and R9, together with condensers C5 and C6 act as a two-section R-S filter. The output of this filter feeds the second 12AT7 directly. Resistor R12 acts as an output control so that the output level from the speech compressor may be made to match the output level of the microphone. Thus when the speech compressor is switched out of the circuit no other adjustment need be made.

The output tube is required for two reasons. It is necessary to present the proper load to the two R-C filters and, secondly, to permit a third R-C stage to be utilised. Inasmuch as the second section of the 12AT7 tube is not used this may seem like wasting part of the tube, but the use of a high-mu triode was dictated and the 12AT7 fills this requirement nicely. Note that the heater of the unused section need not be energised. Many uses for this extra tube section will undoubtedly suggest themselves.

The in-out switch, S2, allows the unit to be switched in and out of the circuit easily. Note that shielded wire is specified for the connections to this switch. The output itself is carried by a shielded lead which plugs into the mike jack of any speech amplifier designed to handle a high impedance dynamic or crystal microphone.

The power supply is conventional in all respects. Because of the low current drain on the power supply a resistor-capacitor filter is employed. Resistor R18 and condenser C11 provide decoupling and additional filtering for the first 12AT7 section plate voltage.

The connections indicated by the heavy black lines in the power supply section should all be made to one ground point. This will prevent the chassis from carrying the circulating capacitor current and help to keep the unit hum-free.

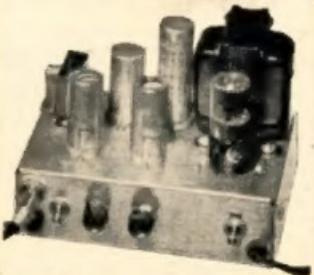


Fig. 1.—The Logarithmic Compressor ready to plug into your present microphone jack. Controls are, left to right, in-out switch, compression control, output control and a.c. on-off switch.

CONSTRUCTIONAL DETAILS

As may be seen from the photograph, the entire unit, including power supply, is mounted on a 5 by 7 by 2 inch chassis. While the layout is not critical, it is advisable to keep the power supply portion of the circuit as far away from the rest of the circuit as possible. The layout shown is quite satisfactory.

With reference to Fig. 1, the front panel layout, from left to right, is: mike jack, output lead, in-out switch, compression control, output level control, AC on-off switch and AC cord. The tubes are, left to right, input 12AT7, output 12AT7 and 6X5 rectifier. Note that the two 12AT7 tubes are shielded. Resistor R1 (underneath chassis) is placed close to the grid pin as possible.

The wiring can be made simpler if the unused leads from the power transformer are pulled inside the transformer case and securely taped to avoid shorts. This was done with the 2.5 volt and the 5.0 volt windings.

The unit pictured uses a bottom cover plate for the chassis. This is recommended to avoid RF feedback. Any sort of thin metal will serve for this purpose, if your chassis comes without a bottom plate.

COMPONENT PARTS

While no extremely critical values are required, it is recommended that the specified values be used in all cases. For example, C2 and C7 are specified as 1.0 μ F. condensers. If lower values were to be used, the frequency response would suffer, and if higher values were used, the result would be insufficient low-frequency attenuation.

Almost any sort of push-pull plates to voice coil transformer will serve as T1. Wattage rating of this transformer is not important.

If possible, linear taper potentiometers should be used at R4 and R12. This sort of taper will give a smoother action than other types of taper.

Care must be taken in purchasing the limiter rectifier, W, because instrument rectifiers come in several different styles. Basically, of course, they are used to make AC meters out of DC meters. However, they can be purchased as half-wave units, doubler units, full-wave units and bridge units.

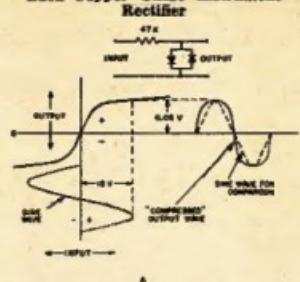
Two separate half-wave units, connected as shown, will work, and the bridge-rectifier style will work if the proper leads are used. The "full-wave" unit will not serve because the two diode sections are connected improperly. In the doubler type rectifier the two diode units are connected as shown in Figs. 2 and 3 and therefore this type of instrument rectifier would be the best to use.

COMPRESSION ADJUSTMENT

The adjustment of the Logarithmic Compressor is done very easily. Plug in a mike and place the in-out switch, S2, in the "out" position so that the microphone is connected directly to your speech amplifier, then follow these three steps:

- Adjust the audio gain control on the transmitter for normal modulation as seen on an oscilloscope (the best method) or some other instrument worthy of trust.

Transfer Characteristics of Back-to-Back Copper Oxide Instrument Rectifier



Transfer Characteristics of Usual Diode Clipper Circuit

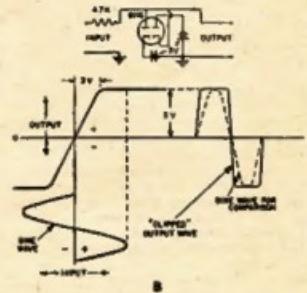


Fig. 2.—A comparison between the output waveform of a Logarithmic Compressor and a diode clipper.

• Put the output control on the unit to zero and set the compression control so that it is about half open. Switch the compressor to "in" and advance the output control while speaking into the microphone until the peak modulation is the same as in step 1. While an oscilloscope is not absolutely necessary in order to make this adjustment, it is strongly recommended.

• Adjust the compression control so that the average plate current in the modulator stage on a sustained "00000—0" is, say, not over twice that obtained with the compressor out. Then try compressor "in" and "out" on a few QSOs to find the best operating point of the compression control for the microphone you are using and the receiving conditions prevalent at the other fellow's QTH.

USE OF THE COMPRESSOR

With the Logarithmic Compressor in use the modulator tubes are required to handle much more average power than usual. In fact, it is possible that your modulator stage will not be capable of handling the extra average power required. Careful checking with an oscilloscope will determine if this is the case.

As a general rule, if your modulator can handle a sine wave signal at 100% modulation, then the average power capability of your modulator is adequate for use with the Logarithmic Compressor. (After all, this ten db gain has to come from some place!) This means that, for a kilowatt rig, your modulator should be capable of continuous operation at 500 watts output at 1,000 cycles. For lower powers the same ratio holds.

In operation the compressor must be used with judgment—good judgment that is. Too much compression may make an otherwise acceptable signal almost intolerable. With a judicious amount of compression one can expect to add from 6 db (4 to 1 in power) to 10 db (10 to 1 in power) in the effective-

Department of EXTERNAL AFFAIRS ANTARCTIC DIVISION

SUPERVISING TECHNICIAN (RADIO-RADAR) GRADE I

Wanted, Supervising Technician (Radio-Radar) Grade I, for each of the Scientific Stations at Heard and Macquarie Islands. Salary range £612 to £666 plus special hardship allowance. Clothing, food and amenities provided. Period of stay approximately twelve months. Applicants should possess an appropriate University degree or technical diploma and should have a thorough knowledge of practical electronics. They will be required to service and maintain radio and radar equipment and radiosonde transmitters and receivers, and will also be required to act as senior wireless telegraphists. The appointee to Macquarie Island will be required to operate ionospheric equipment and take an interest in this branch of research. Applicants must be young and healthy and interested in outdoor activities such as walking, skiing, mountaineering, etc. Full details on application to the Officer-in-Charge, Antarctic Division, Albert Park Barracks, St. Kilda, S.C.3, Victoria.

W/T OPERATORS

Wanted, four W/T Operators to staff the radio stations at Heard and Macquarie Islands.

Salary range £552 to £576 plus special hardship allowance. Clothing, food and amenities provided. Period of stay approximately twelve months. Applicants should be fully qualified and must be young, healthy, and interested in outdoor activities such as walking, skiing, mountaineering, etc. Full details on application to the Officer-in-Charge, Antarctic Division, Albert Park Barracks, St. Kilda, S.C.3, Victoria.

ness of his signal provided conditions at the receiving point are such that understanding without the compressor or is impaired by QRM or high background noise.

RESULTS WITH THE COMPRESSOR

In many months of test at W2KUJ the following information has been

obtained. Nearby stations, or stations not experiencing QRM, prefer that the compressor not be used. Stations receiving a weak signal or listening through severe QRM prefer that the compressor be used.

Reports from the latter stations range from eight to ten db jump in effective signal strength when the compressor is

switched in. Reports from nearby stations are that the signal is louder, but somewhat less readable with the compressor in use than without it.

In no case has a report been given that the signal was broader when the compressor was used, even when this question was asked of nearby stations.

Tests made at W2RYT's shack indicate that different microphones give somewhat different results when used with the compressor. For example, an Electro-Voice Model 805 dynamic mike and an Electro-Voice Model 915 crystal mike seemed to have identical speech characteristics (although the dynamic mike had less output) when used without the compressor.

When used with the compressor, the dynamic mike was found to have a speech quality which was less harsh than that of the crystal mike. Further, it was found advisable to advance the compression control with the dynamic mike.

The foregoing is not intended as a recommendation for dynamic mikes, nor is it intended as an authoritative comparison between two Electro-Voice microphones. The comparison has been made to emphasize the importance of testing your compressor carefully with each microphone you may use with it.

In summary, one can expect to boost the effectiveness of his signal when it is needed most by use of the compressor (it frequently means the difference between making a contact or not) with some decrease in ease of reading the signal where the compressor is not needed.

Bear in mind that the compressor can be misused (to your disadvantage). Seek honestly to find the operating points which best exploit its use. In many cases it is best to not use the compressor. But in those cases where it is needed, the Logarithmic Compressor can really do a job for you.

Fig. 3.—Circuit diagram of the Logarithmic Compressor.

CIRCUIT CONSTANTS

(All resistors and capacitors $\pm 20\%$ tolerance unless specified otherwise.)

C1, C9—0.01 μF , 400 volt paper or mica
C2, C7—1.00 μF , paper (see text)

C3—1000 pF, mica.

C4—0.05 μF , 400 volt paper.

C5—1000 pF, $\pm 10\%$ mica.

C6—100 pF, $\pm 10\%$ mica.

C8—0.005 μF , $\pm 10\%$ mica.

C10—16 μF , 450 volt electrolytics (see text).

C11—8 μF , 450 volt electrolytics.

R1, R14—10,000 ohm, $\frac{1}{2}$ watt.

R2—10 megohm, $\frac{1}{2}$ watt.

R3, R10—470 ohm, $\frac{1}{2}$ watt.

R4—0.5 megohm potentiometer.

R5—0.1 megohm, 1 watt.

R6, R11—47,000 ohm, 1 watt.

R7—47,000 ohm, $\frac{1}{2}$ watt.

R8—56,000 ohm, $\pm 10\%$, $\frac{1}{2}$ watt.

R9—0.56 megohm, $\pm 10\%$, $\frac{1}{2}$ watt.

R12—0.1 megohm potentiometer.

R13—0.47 megohm, $\frac{1}{2}$ watt.

R15—470 ohm, 2 watts.

R16—2,200 ohm, 2 watt.

R17—1,000 ohm, 1 watt.

R18—4700 ohm, 1 watt.

S1—SPST toggle switch.

S2—SPDT toggle switch.

T1—Push-pull plates to voice coil audio transformer (see text).

T2—Power transformer, 300-0-300 volts at 50 mils., 6.3 volts at 2 amp.

W—Copper-oxide instrument rectifier (see text).

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Extracting the Watts

BY E. A. CHARLES,* VK5YQ

With the receiver problem out of the way (August "A.R."), thoughts turn to the transmitter and output efficiency. There are many ways of feeding various antennas and checking the S.W.R. to affect the matching of the transmission line to the antenna. This is a most necessary pre-requisite to efficiently loading the transmitter, as well as ensuring that the antenna system only is doing the radiating. However, the usual antenna tuner has been left in its pre-war form—a high L/C circuit designed for both series and parallel tuned feeders.

The usual antenna tuner was constructed on similar physical lines to the final p.a. tank. The Amateur was not concerned with loss of fidelity due to attenuation or high frequencies—sideband cutting. A high impedance tank was required for voltage-fed resonant lines for Zepp fed aerials and multi-band operation.

With the introduction of low impedance, un-tuned, non-resonant lines, the way out was to feed them by either tapping down the antenna tuner tank, or by inductively (link) coupling the transmission line. More often, an antenna tuner was not considered, if, by pushing a one or two turn link into the final tank, it "loaded." If it didn't, the coupling was increased until it did "load," or, the new aerial (or transmission line) was immediately condemned!

With the availability of 300 ohm twin lead, or the economy and free-from-weather-effect of home-constructed 300 ohm transmission line, its flexibility makes it a natural choice. It has low

* 193 Young Street, North Unley, S.A.

losses, freedom from radiation, and freedom from unbalance due to proximity of grounded objects. So, you leave tuned feeders and full-wave Zepps to the countryman, the old-timers and experimenters like the VK5 "Umbrella-Man," putting your antenna system, whatever it may be, wherever most suitable, without any worries where the feed line must go.

Now, let us see what else is required. The object is to draw power from the p.a. and put all possible into the antenna (again remembering that only when the line is matched to the antenna feed-point impedance will all that power go into the antenna). In addition, we also desire:—

- (a) The most efficient transfer of power;
- (b) Absence of b.c.l. interference;
- (c) Absence of harmonic radiation (and t.v.i.);
- (d) If possible, multi-band operation.

With the transmitter itself properly tamed, (b) and (c) are taken care of by link coupling and a Faraday shield. It is a simple matter to install the popular 75 ohm co-ax line, using the outer braiding to form a Faraday shield. However, you must ensure that the antenna tuner is not within the field of the p.a. tank, or the effect of the Faraday shield is lost. It does not have to be co-ax line—you can shield a loop with braid (and insulate it) and earth it, running twin lead to the antenna tuner unshielded when it is out of the p.a. pick-up zone. And it does not have to be exactly 75 ohm line, for a short line (compared to a quarter wavelength at the operating frequency) similarly terminated each end, reflects the same impedance both ends.

The reason for the figure 75 ohm, is because the antenna tuner is a parallel-tuned two turn coil (2" inside diameter, spaced wire diameter, heavy copper wire or tubing, silver plated if possible). The single turn link becomes the primary of a 1:2 turns/voltage step-up transformer; which is a 1:4 impedance step-up. Four times 75 equals 300—right on the beam for our 300 ohm line.

For plate-modulated phone, a p.a. tank with a loaded Q of 12 is desirable. An optimum practical coefficient of coupling of 0.09 makes the antenna tuner with a loaded Q of 10, so for parallel resonance, the capacity required equals: $C = \frac{Q}{2\pi f R}$. Remembering again, only where our antenna is matched to the line (which now behaves as a purely resistive load at the operating frequency—300 ohms).

The capacities in circuit to resonate our antenna tuner with parallel tuning are:—

Ten Metre Band 100 pF. approx.
Twenty Metres 350 pF. approx.
Forty Metres 900 pF. approx.

Since it is a low-voltage tank, a receiving type condenser will be satisfactory—a 0.0005 usual b.c. type is OK. One that can be mounted with equal capacity between fixed and moving plates to earth is preferred. For tuning forty metres, a 0.0005 fixed condenser in parallel is required (for forty metres can be series-tuned by having a capacity of approximately 7 pF. in series with one leg of the 300 ohm line—the parallel capacity out of circuit).

The capacities are given as approximate, as they will depend, in actual working conditions, on the extra amount of inductance present in the circuit represented by the actual length of leads from the coil to the condenser. The parallel capacity will usually be a small percentage less. However, if the antenna loads way off the capacity shown, you haven't remembered! Or, if you have, you haven't done anything about matching the line to the antenna—you have got a poor S.W.R.! So get to work with a twin-lamp!

Assuming you have a low S.W.R., you will find that you will have the same or a little better line current as when using the high L/C type antenna tuner. After all that was really like putting in a power transformer when all that was required was a 2.5v. to 6.3v. auto-transformer!

To refresh your memories, the line current to be expected is calculated from $P = I^2 R$, where R is your line Z when flat. So, if you are running forty odd watts to an 80 Ω , then an output of 30 watts is pretty good, giving 0.32 Amp. in the 300 ohm flat line to the antenna.

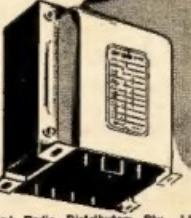
$$(I = \sqrt{\frac{P}{R}})$$

For you 100 watt men, unmodulated line current of 0.5 Amp. is the order of the day. If you have any more on an accurate RF meter, it means either (a) you have standing waves, or (b) the R.I. is away on annual leave!

Put up a folded dipole for each band desired, you know that is well matched.



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Abstracts from Overseas Magazines

R.S.G.B. "BULLETIN," APRIL, 1950

P. 382: "The Design of Tank Circuits of Constant Q"; R. E. Rogers, G5YR.—How to pick L/C ratios and match impedances of power amplifiers.

P. 383: "A 20 Mc. Communication Receiver from the F1132A"; S. Smith, G5UH.

P. 385: "Avoiding Harmonic Generation"; E. Willis, G5OU.—To avoid TVI, operates VFO on 28 Megasycles.

P. 389: "A Simple S Meter for the BC348"; A. J. Hayes, G5PD.

P. 390: "In the Workshop."—Films and filling, shear and the snips, cutting large holes, Drilling glass.

"SHORT WAVE NEWS," APRIL, 1950

P. 82: "A Communication Receiver from the F1132A"; S. Smith, G5UH.

P. 97: "Seventy Centimetres, Part III.":—Super regen receiver using 985.

"SHORT WAVE MAGAZINE," APRIL, 1950

P. 88: "Two Metres with Three Valves"; G. Green, G5PFB.—8857 harmonic e.o. and tripler, QW04/4 doubler, 885 final. Good sketches of physical layout.

P. 105: "Screen Control Modulator"; H. J. Beach, G5JU.—Economic screen modulation.

P. 108: "Wave Switching Circuits"; C. A. Knight, G5NBB.—A wave switcher using 1000 valves.

P. 113: "Modulation Level Indicator"; H. Barnett, G3AQ.—Rectifier and meter across modulator output.

P. 113: "Dual Purpose Modulator"; J. N. Walker, G5ZP.—110 volt power from the F1132A.

P. 127: "Matching Fender Lines"; F. Tillotson, G5XT.—Practical hints for adjusting feeders in particular for 300 ohm twin lead.

"RADIO AND ELECTRONICS," MAY, 1950

P. 4: "A Sub-Miniature Receiver for Radio Control Work"; P. 10: "A 100 watt transmitter using three tetrode grid valves. A battery chain of 75 Ma. at 1.5v., a battery drain 500 microamps at 25.5v. Receives, relay, and batteries weight six ounces.

P. 11: "Mechanisms for Radio Control."

P. 29: "Portable Transmitter for Radio Control Work"; S.A.S (or DCM60) self excited oscillator. Three watts output at 50 Mc.

P. 24: "New Philips Range of Transmitting Valves."—Discussion of the amateur uses of the Q508/40, QW04/40, QBI/800, FB2.5/3900, QED4/40, QED4/40, and QQC4/40.

"SHORT WAVE NEWS," MAY, 1950

P. 122: "A Portable Battery Receiver"; J. N. Walker, G5JU.—Tuned RF stage, regenerative detector, audio, Plug-in coils.

P. 128: "Seventy Centimetres, Part IV.":—Available corner reflector. Sixteen element beam. Twenty-four element beam.

"RADIO AND TELEVISION NEWS," MAY, 1950

P. 17: "Simplified Ham TV Station, Part I.": J. R. Popkin-Churnas, W2LNF.—General discussion of the "living spot" system used.

P. 20: "Supermodulation News in Transceivers"; K. M. Kovacs, W2AFQ.—Transceiver with RE unit built into a telephone handset.

P. 51: "A Supermodulation Phone Transmitter"; R. P. Turner, K5AL, and J. W. Graves, WGMVY.

885B from using one half as the power amplifier and the other half as the modulator stage.

P. 83: "N.B.F.M. and F.S.K. Unit for Self Excited Oscillator"; R. W. Jones, WEDG.—Uses 6SL7 as Miller effect reactance tube.

"CO." MAY, 1950

P. 11: "Design Considerations for Class C Power Amplifiers"; H. L. Klippen, WUSQO.—Simple formula for Class C calculations.

P. 16: "Crystal Controlled Walkie-Talkies for Operation on the 144 Mc. Band"; G. Trewick, W6ER.—Dry battery operation. Six tube transmitters/receivers. Four valve power supply.

P. 38: "Eliminating TVI in Your Ten Metre Transmitter"; S. Kugerman, W2GVT.

P. 22: "Meet the Capacitor"; B. L. Rod, W2KVV.—A 20 Mc. Sub-Miniature Communications Receiver; R. C. Armstrong, W6HVY.—Twin-triode superhet using 89 and 40 metres. 8865 mixer, 640 rectifier/detector and audio.

P. 28: "Variable Audio Selectivity with the Super-PL-8 Filter"; J. T. Pyskiewicz, W1JXU.

P. 29: "The Electrical Design of the 20 Metre Wide-Spaced Rotary"; W. L. Orr, W6RBL.—Good straightforward information on tuning them up.

"RADIO AND ELECTRONICS," JUNE, 1950

P. 27: "A Sub-Miniature Receiver for Radio Control Work"; Part II.—Adjusting and testing.

"SHORT WAVE NEWS," JUNE, 1950

P. 134: "An O.V.O. Receiver"; G. H. M. Yule, P. 137: "An Efficient Aerial for 28 Mc.," H. E. Smith, G5UH.—Two wavelength wire, fed off centre with 100 ohm balanced feeder.

"QST," JUNE, 1950

P. 11: "Amateur Television—A Progress Report"; E. P. Nichols, W1HDO.

P. 16: "An All-Band Mobile Antenna System"; K. S. Perry, W1HBR.—Quarter wave whip for 2, 6 and 10 metres. Loaded whip for 20, 40, 80 and 160 metres. Details of universal loading coil and adjustment procedure.

P. 19: "An Impedance Bridge for Low Tan Delta"; R. C. Dudley, W3MPC.—Simple bridge for measuring D.C. and R.

P. 26: "Six Metre Coils for the HRO"; L. G. Windom, W2GZ.—Conversion of a spare coil box for six metres.

P. 28: "Packaging the Basic Phone Exciter"; R. W. Bradley, W1PWN.—Miniature construction of s.a.s.c. exciter.

P. 30: "A Four Tube Bandswitching Circuit for Mobile Rig"; W. L. Iden, W9LHF.—8N7 crystal oscillator, devider, 807 final, 6N7 class B modulator.

P. 31: "Noise Limiter for the HRO"; H. W. H. Blamey, G3M1Z.—6H6 limiter for pre-war and wartime HRO's.

P. 36: "A Low Cost Audio Filter"; G. F. Mountford, W2AFO.—Uses two filter chokes and a few condensers.

P. 41: "Tower and Rotator Techniques"; L. H. Hippis, W2AFO, Part II.—A rotator, direction indicator and control unit.

P. 56: "Hints and Kinks"; (1) Improved b.d.o. circuit for the SK4X; (2) Antenna feed through panel; (3) Protection for modulation transformers.

"HAM NEWS," MAY-JUNE, 1950

P. 1: "The Logarithmic Compressor";—Speech clipper using a copper oxide instrument rectifier instead of diodes for clipping. This has a softer clipping action and an R-C filter can be used instead of the elaborate L-C filters necessary for diode clippers.

P. 2: (1) "VFO Hi-La Switch"; (2) "Proper Care of Crystal Microphones."

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Tribute from Postmaster General

The following letter has been received from the Postmaster General personally commanding the Amateurs on their valuable service to the people of Australia concerned in the recent floods in New South Wales.

The Postmaster General says: "In a recent broadcast over 2KM Kempsey in connection with the recent widespread floods in New South Wales, I made appreciative reference to the assistance given by the licencees of Amateur Wireless Stations."

He then continues, "Since then, I have received further information of the part played by members of the Institute, both in the Kempsey area and also in other parts of the State affected. Accordingly, I would now like to confirm in writing the sentiments expressed over 2KM, and to say how pleased I am with the readiness shown, once again, by Amateur Operators to perform a public service, in times of emergency, with the facilities for which they are licensed."

Federal Executive, on behalf of all the Amateurs, have great pleasure in conveying the contents of this letter to members and, on behalf of the Wireless Institute, of thanking those members who participated in this public service for stricken people in the flood areas. Keep up the good work of having reliable equipment available for times of national emergency. It is gratifying to receive such tribute from the Postmaster General and to know that the activities of Amateurs are held in such esteem by high authority. Let us pursue our hobby always on a plane that will maintain this happy relationship.

Moorabbin & District Radio Club's Honorary Membership Certificate

For the past few weeks the Moorabbin Radio Club has been publishing their publicity scheme in relation to Honorary Membership Certificates. The rules appear below and would suggest that you read them carefully. This is not a competition, but a means of recognizing friends of Hams.

The Moorabbin Club has a membership of over 30 including 16 active Hams, working from 80 to 2 metres. The meeting nights are as follows: Wednesday is the social night, the practical night, and the third Friday is the general meeting. Club rooms are at the Town Hall, Nepean Highway, Moorabbin. The club's call sign is VK3APC.

RULES OF AWARD

Object.—To promote interest and friendship in VK3APC contacts.

1. There are many active transmitting members of the club and to become eligible for the award, Australian mainland stations are in contact, by radio, 14 member stations, including the club's call sign, VK3APC.

2. Overseas stations, including ZL and Pacific Islands, to contact any 12 member stations by radio, phone or e.w., not necessarily including the club's call sign, VK3APC.

3. The contacting station is asked if the VK3 being contacted is a member of the Moorabbin and District Radio Club, and then contacted member stations may give explanatory details relating to the award.

On completion of the required number of contacts, the contacting station to give a list of christian names ONLY, together with dates of all contacts, to the final station.

After checking with logs of named stations and finding no errors, a certificate of honorary membership will be awarded.

6. Honorary membership will allow all privileges of full membership less the power of vote.

7. The award is not available to club members.

8. Rules and conditions of award may be amended where necessary (as outlined in Constitution No. 3, paragraph H) by a notice of motion, one month prior to being put to the vote, at a regular meeting of the club. After being duly passed by a majority of its members, the amendments will come into force.

THE EDDYSTONE "750" COMMUNICATIONS RECEIVER

Selectivity.—The answer to the problem of obtaining high adjacent channel selectivity with freedom from image frequency interference is the addition of superhet performance as has been done in the "15"-series, etc., etc., the first 15 is 1820 Kc and the second 85 Kc. In the 85 Kc. transistors, the coupling between the coils can be varied mechanically to give a wide range of selectivity, 15 Kc. to 85 Kc. The response is 80 db down at 5 Kc. off resonance, giving a very sharp "nose" and almost the highest usable degree of selectivity. This position is for c.w. reception; telephony is still readable but the side bands are suppressed by the pentode.

With the selectivity control set at minimum, the response is 30 db down at 5 Kc. off resonance, this still represents a much higher than average selectivity and telephony stations only a few kilocycles apart can be heard. It will be noted that the moderately good audio quality. As a matter of interest, provided a loudspeaker of adequate size is used, and properly mounted, the quality of speech and music from broadcast stations will satisfy all but the most critical listener.

Sensitivity and Signal-to-Noise Ratio.—These two features are being dealt with as one, since it is difficult to quote only sensitivity, without reference to the noise level. By adding valve after valve to a stage, the overall sensitivity can be increased but whether any worthwhile improvement is obtained or not depends on the number of stages. The mutual injection of signals takes place depends on how much the noise level increases. Which leads to a point about specifying sensitivity. Most well known manufacturers specify a certain value, which probably less, but the information is really useful only when a figure is quoted in comparison with noise. In the "750" the minimum sensitivity quoted is 10 microvolts for 20 db signal-to-noise ratio, which is an extremely good figure. It simply means that a comparatively weak signal is audible against a very quiet background noise and this is one of the most important and more easily appreciated features which immediately claim attention when one comes to use the "750".

It is normal for the sensitivity to vary to some degree over each range of operation, but the variation is not so great, but in the "750" the interstage couplings have been adjusted so that the variation is small. Maintenance of accurate tracking of the gain control also assists considerably in this respect.

Valves.—Of recent years much research has taken place in the development of improved valves and the modern miniature types have many advantages over older valves. One is the short lead-out wires, resulting in low inductance, another is the lower anode grid capacity achieved by the use of better materials and construction, which materially assist in improving the high frequency performance. In the "750" nine miniature valves are employed, plus a rectifier and a neon indicator, the two latter being of the semi-typewriter type.

Other valves used are the standard design and the use of a high slope d.c. bias valve, which gives amplification of a high order. The gain is more than sufficient for all normal purposes and the addition of a second stage, a just possibility.

The oscillator circuit, which is of the triode type, which position as EC842 triode-heode valve is used. The anode of the triode portion is earthed and the oscillator voltage, developed by a separate valve (a 5Z8) is injected into the grid. An increase of degree of oscillation is obtained.

The output at 1820 Kc. fed to the 1st. transformer in the audio circuit of the EC842 is fed direct to the second frequency changer, another EC842. Now many may question the absence of an intermediate stage being used, as far as this unit is concerned, but this is a pity. Whether or not an intermediate stage will be of benefit depends on the signal voltage required at the grid of the second frequency changer to ensure a high signal/noise ratio. In the "750" the signal given by the 1st stage, the good common-emitter action of the EC842 and the high "Q" of the 1820 Kc. L.t. transformer, result in voltage at the grid of the second frequency changer being sufficient without further amplification.

The oscillator section of the EC842 oscillates at a fixed frequency of 1335 Kc. and the resulting output at 85 Kc. is fed to a high "Q" transformer and amplified by the 6AB5 high slope valve. The coupling between the windings in both the oscillator and intermediate stage is variable by a mechanism's linkage controlled by a butterfly knob on the front panel.

There follows a double diode triode, the diodes being employed only for signal detection, the other for the local oscillator, neutralizing the local oscillator signal before it is passed on to the high slope 758 output valve. The latter is a new type of Oszam manufacture and is capable of giving in excess of 3.5 watt output at a low level of distortion.

One diode of a type 6ALS valve is used as a noise limiter, and as a result of the careful alignment of the circuit the limiter is strikingly effective and is greatly boon in situations where unsuitable ignition and similar interference is prevalent. The noise limiter has only a slight effect on the general audio level.

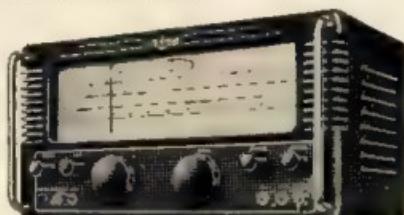
The second diode is connected in series with the external "L.T." meter (when used). By its normal position, the diode is in the reverse direction, thus preventing the possibility of damage to the 200 microampere movement fitted to the "750" Meter.

The 6AL5 is a completely screened unit, utilizing a 500 volt power supply for high reliability.

The VR150/20 stabilizer valve regulates the h.t. voltage to the anodes of the oscillator valves, to the screen of the first frequency changer valve and also to the resistor network associated with the "S" Meter when the latter is used. Finally, there is a 3Z1G rectifier valve.

Some Points about the "750".—Attention has already been drawn to the high selectivity and sensitivity possessed by the "750" receiver and there are a number of other features which deserve mention.

The heater circuits are balanced, the centre tap of the power transformer winding being earthed. Heater bypass condensers are used where necessary and stray couplings through the heater wiring minimized. As a result, there is a complete absence of modulation noise right up to the highest frequency—signals up to 10 Mc. are handled as TV. The smoothing in the h.t. line is fully adequate and no hum is heard from this source.



Special Attention has been given to the noise limiter circuit, not only to make it fully effective but also to prevent the introduction of hum due to heater/cathode leakage. A separate centre tap power supply is used for the noise limiter valve and a bias system is arranged to ensure that the cathode is positive to the heater.

The transformer fitted to the "750" is of generous size and is capable of providing more power than the "15" type. The transformer core is wound and runs cool under any conditions. All components are finished for tropical use, the metal has been specially treated to resist corrosion and reliability of a high order is ensured even when the receiver is operated in areas of high ambient temperature and humidity.

Tuning Mechanism.—The train of spring-loaded gears forming the tuning mechanism is a fine piece of small engineering. The control knob spindle is flamed hardened and the movement is smooth and quiet. The main dial is graduated in two sections, the inner and outer sections being graduated from 1 to 1, which makes possible fine tuning. The scale is directly calibrated, a noticeable feature being the linear spacing of the markings. The dial is large, occupying the major portion of the front panel, and is illuminated by three small lamps fitted along the top.

Band Spread.—Driven from the main gears is a rotating scale, the graduations on which (0-100 divisions) are read off in the opening at the top of the main scale. For every complete revolution of the main scale, the dial is rotated in proportion to the length of one major division prior to the bottom of the main scale. In all, the band spread scale covers 2,500 divisions over each wave range, equivalent to a length of about 35 feet. It follows that the band spread is available over the entire range of the tuner, the small figures being given below. These are based on the allocations made at the Atlantic City Conference.

Band Width	Tuning	Vestiges	Kc.	
			Coverage on Vestiges Scale	of Band spread
29.7 to 28 Mc.	54.375*	308	1700	
21.45 to 21 Mc.	7.5**	48.5	460	
15.35 to 14 Mc.	6.45**	29	250	
7.3 to 7 Mc.	1.5**	91	300	
4 to 3.5 Mc.	61**	384	500	

Absence of Crystal Filter.—The selectivity given by the "750" receiver with the control at maximum is so great that it is practically impossible to make any change in the filter, and therefore it is not necessary to go to the expense of adding a crystal filter, with its attendant complications.

Operation on Telephony.—With its high sensitivity and low noise level, the "750" receiver is the ideal for those whose interest lies in the reception of weak telephone signals from distant Broadcast Stations. The intelligibility of such transmissions can be enhanced by careful adjustment of the selectivity control, which should be at minimum with strong stations and increased, under present day conditions, interference is a major problem and occurs too often. Moving the selectivity control towards maximum will gradually cut it out and only in extreme cases will it be necessary to use the highest possible selectivity.

Automatic Gain Control on the "750" is most effective and the audio output from a given signal is held within close limits despite severe fading.

C.W. Operation.—Some experience is necessary with any receiver. Some experiment results are to be expected, but "750" is no exception to this rule. When the b.f.o. is switched on, a.g.c. is cut out (otherwise the sensitivity would suffer). With minimum selectivity, the i.f. transformer couplings are optimum, and there is rather more i.f. gain available than is obtainable with the b.f.o. When the b.f.o. is switched on, the a.g.c. is cut out and the i.f. gain should be reduced manually.

In the majority of cases, it will be advantageous to use a high degree of selectivity and, with the transformer coupling below optimum, the i.f. gain should be advanced.

The b.f.o. pitch control gives a variation of 8 X No. 1000, effectively covering the whole steep slope of the selectivity curve. It will be found that a signal peaks up on the side to which the b.f.o. pitch is set. When interference is present, this can often be reduced or removed by moving the b.f.o. pitch to the other side of zero beat and then slightly retuning. In effect, single signal reception is possible.

Standby Switch.—The standby switch is fitted with a long "dolly" (operating lever), so that there is no need to move the hand to the front panel. The method used for mounting the receiver is to increase the bias on the 6AB5 amplifier valve, with the h.t. stabilizer on all stages. Two benefits result—the oscillator valves operate under constant conditions throughout, giving greater frequency stability and the receiver is available to monitor the outgoing signal from the associated transmitter.

Pick-Up Terminals.—Provision is made for use of a standard type crystal or magnetic pick-up and these terminals serve another useful purpose—they form a separate antenna (c.w. or telephony) circuit. This will become available on the telephone or teletype or telex machines, thereby rendering it unnecessary to fit an external switch.

"S" Meter.—Some operations like to have available an "S" Meter, which instrument can be very useful for comparative reports of telephony transmissions as a tuning aid. The method used is to increase the bias on the 6AB5 amplifier valve, with the h.t. stabilizer on all stages, and particularly those whose main interest is c.w. does not require an "S" meter and the latter is therefore made an optional extra. It takes the form of a diode having a shunt to match the receiver and is fed from an antenna input. The meter only has to be inserted in the socket in the front panel and the switch to bring the "S" meter into use.

Power Requirements.—The "750" receiver is designed for operation normally from a.c. mains, 40/50 cycles, a voltage selector panel enabling voltages of 110, 120, 130, 140, 150/160 and 220/240 v. The consumption from the a.c. is approximately 75 watts. The transformer is of more than adequate size and runs cool over an extended period. Very generous smoothing is included, with a consequent absence of hum.

On completion, it may be desired to operate the receiver from a battery supply and a special vibrator unit is available to meet this requirement. Listed under Oct. No. 687/1, this unit is contained in a small case, which matches the receiver and is fitted with plug for connection to the receiver. The consumption is from a 9 volt accumulator in the region of 8 amperes.

Conclusion.—Although the foregoing description of the new Eddystone Receiver is fairly lengthy, it still does not cover the subject completely, nor do Justice and Company Ltd. claim to have got into the design of the receiver. But enough has been said to enable the reader to judge for himself the suitability of the "750" for use in Amateur and Professional Communications and for Broadcast Stations.

The above details have been supplied by the manufacturers—Stratton & Co. Ltd., Birmingham, England—and described by J. N. Walker (GJU). The Australian Factory Representatives are R. H. Cunningham Pty. Ltd., of 61 Stanhope St., Malvern, Victoria.

DX NOTES BY VK4QL

For the week-end of 12th and 13th August, I don't think there were many VK Hams interested in DX, the attraction being the 1950 Remembrance Day Contest, and what a party! Each year this Contest is creating more and more interest, with more and more taking part.

Many of the keen DXers who have been hibernating while the DX has been so poor, crept out of their cocoons for this week-end and have apparently gone back to them as I have been unable to get any scores to include in these notes.

Conditions in Townsville were rather good for the Contest, 3.5 Mc. on the Saturday night and the lack of DX signs on 14 Mc. on the Sunday afternoon, enabled us to hear the weaker VK signs. 4TU and I tried to work 7 Mc. in the early hours of the morning, but more than half a mile is required to let two use that band at such close range. 4TU worked UA4FE on 7 Mc. in the middle of the Contest. Wouldn't it, with me needing Europe for 7 Mc. W.A.C. Two South Africans were also heard in the Contest on this band. The only scores I know of over the 400 mark are: 2PA 617, 2EO 593, 4QL 445, 4TU 425. Have not heard any of the VK6 or VK7 to see what happened over there.

As was anticipated, the DX on all bands has been very erratic and it looked as though these notes were going to have very little in the way of DX news. But, as I always say, you never know when the bands will "turn it on." This was borne out on the 14 Mc. band the week-end following the R.D. Contest, prior to a fade-out on the Sunday afternoon.

I find that just before a good fade-out is a real DX time, and this was the case on the Friday and Saturday. I managed six new countries out of the contacts made. I think the most interesting contact was PI1LS, who was on a Dutch weather ship, the QTH being 52°N and 20°E. QSL address is Box 400, Rotterdam.

The next week-end the same thing happened, but the noise level was well down, enabling the weaker DX to be heard. All over the world this year Hams have complained about the high noise level on the 14 Mc. band. Well, this week-end it was missing. The best catch this time was 9S4AX, whose QTH is Saarbruecken, Saar STR9. He advised there are four stations operating in the Saar. Strange to say no "dog pile" formed on him and he made a couple of fruitless CQs and called a couple of VPKs with no result. Guess he was thought to be just another commercial in the band.

Some of the DX stations who more or less had a prefix to themselves are having competition, e.g. KV4AQ and KV4AU have been worked as well as KV4AA. A number of SP, OE, PJ, and HA calls have been heard. Some of the calls missing from the bands for some time are FN8AD, CRIQAA, FI6ZZ, VR5PL, and FU8AA. CR5AG has left Macao and from what he told me is going on a bit of a world tour.

Some of the rarer calls which have been heard or worked this month are: TG5AD, Box 299 Guatemala City; TA3AA, TA3FAS, UG6WD, 9S4AX QSL via D.A.R.C., PJSFN, PJSRE, HSISS, KS4AC Swan Is., c/a Tampa Florida; VP1INW, PZ1AL, Box 226, Surinam; PK5AA, Radio Stn. Balik Papan; FQ8AC, Box 175 Bangkok; LA4ZZ, VR1B, TF5TF, VP8OO, via VP8D. Except for about two of the above, the stations were heard between 2 p.m. and 11 p.m. E.S.T. QSLs received from TF3AR, VP7NM, VP7NU. One also received from FN8AD for our VK3 contact. Did anybody ever get a QSL from FI8ZZ? Haven't heard of any myself.

A certain VK5 has never heard of the "Gentlemen's Agreement." Was running a sked the other night on phone in c.w. band with PK4DA. DX was coming through fairly well at the time here.

Have you had a look at the Station List in the latest issue of the Short Wave Handbook put out by "Radio and Hobbies"? Did you notice in the overseas station list the number of stations shown operating in the 7 Mc. band? I think 2JU could do the Hams a service if he gets all the details of the broadcasts and submits them to Federal Executive for action to be taken up with the right people. What about it John?

* The thought for the month: "The Ham never uses the air for his own amusement in such a way as to lessen the pleasure of other fellow Hams."

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

OCTOBER, 1950

Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3	N.-West America	San Francisco
3a	N.-East America	New York
4	Central America	Barbados
5	South Africa	Johannesburg
6	Far East	Manila

The Perth charts are similar to those based on Canberra.

QUIZ

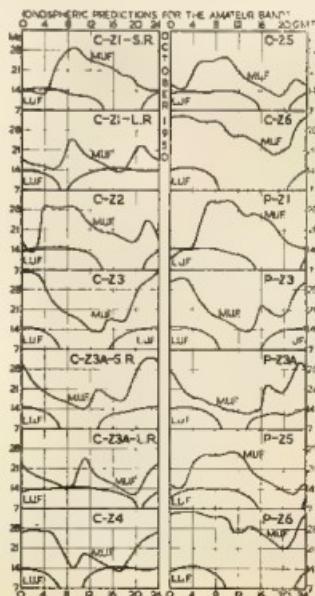
The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Canberra-San Francisco circuit would be useful:-

1. Were good conditions experienced on 7 Mc. for the period 0700 to 1500 hours G.M.T.
2. Was the 14 Mc. band workable between 1200 and 1500 hours G.M.T.?
3. Was the 28 Mc. band workable for several hours around midnight G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, relate to consistent results obtained on the majority of days in the months.

DX C.C. LISTING

OPEN		
VK3RZ (4)	48 200
VK6BU (8)	39 169
VE3KX (1)	40 167
VY4HH (7)	40 167
VE3LH (2)	40 161
VE3OI (2)	40 160
VY3HO (3)	40 160
VY3LE (13)	39 154
VE4ED (10)	48 140
VY4DO (12)	48 140
Endorsement		
VK2ABA (9)	126
VY4FJ (22)	126
New Members		
VK2TJ (27)	103
VK3HO (28)	103
VK2TG (19)	39 100
C.W.		
VK2BZ (d)	48 177
VE3EG (8)	40 158
VY4FH (15)	39 151
VK3W (4)	40 140
VE4EL (9)	40 140
VY3EB (10)	39 138
VY3FH (8)	40 138
VY4HH (8)	40 131
VE4RF (11)	35 125
Endorsement		
VY4DO (20)	113
New Members		
VE3EA (28)	136
VE3KX (30)	105
VY4FJ (28)	102
PHONE		
VK2JD (1)	37 146
VY3EE (10)	143
VE3EW (4)	37 146
VY3EZ (5)	37 137
VY4HRU (2)	37 133
VY3EN (1)	136
VY3HN (11)	135
VY4HR (12)	83 133
VK4E (9)	121
VE4JP (6)	114
Endorsement		
VK2ABA (15)	102



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FEDERAL, QSL, and



DIVISIONAL NOTES

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NEW SOUTH WALES

President.—J. Corkie, VK3YC
Secretary.—H. Duff (VK1EO), Box 1784
G.P.O., Sydney.

Meeting Night.—Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor.—A. C. Pearce, VK3AHB,
191A Belmont Rd., Leichhardt, N.S.W.

Zone Correspondents.—North Coast & Islands: J.
M. Bettalick, VK3XO, Raleigh, Newcastle.

H. Whyle, VK3AHA, Vale St., Birmingham
Gardens, Newcastle, Coledale and Lakes:

H. Hawke, VK3YL, 27 South Crescent Ave., Cessnock, N.S.W.; W. H. St. John, VK3YD, 100
Cobijou, Fingal, South Coast and South-

ern: R. H. Hayter, VK3YD, 42 Pittville Rd., Yass;

Western Suburbs: A. C. Pearce, VK2AHB, 191A
Belmont Rd., Leichhardt, Eastern Suburbs:

H. Whyle, VK3AHA, 142 Flinders St., Hawthorn,
Brunswick, North Sydney; D. G. Cuffe, VK3AM,

778 Military Rd., Mosman; St. George: J. A.
Ackerman, VK3ALD, 83 Park Rd., Carlton,
South Sydney; V. H. Wilson, VK3YV, Cr. Wil-
son St., and Marion Pde., Maroubra.

VICTORIA

President.—G. C. SOUTHERN, VH3QS.

Administrative Secretary.—C. Dyer (VK3EY), 10 Collingwood Ave., Brighton (S.E. 5552).

Administrative Secretary.—Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne, C.I.

Meeting Night.—First Wednesday of each month at the Radar School, Melbourne Technical College.

Zone Correspondents.—Western: G. C. Waring,
VK3YK, 1000 Military Rd., West Melbourne;
K. O'Rourke, VK3AKH, Killara, Westmead

North Eastern: T. E. Tenant, 18 Harold St., Sheepstor, Far North Western: M. Folse,
101 Lennox Ave., Mildura; Eastern: H. O. Kel-
ley, VK3AE, Ingleburn; North Western: G.

Cole, VK3ACE, Cumming Ave., Birchgrove.

FEDERAL

REMEMBRANCE DAY CONTEST

Members have caused considerable delay and in convenience by forwarding Contests direct to the Federal Secretary instead of to their respective Divisional Councils. With all Federal Contests it is necessary that members forward their logs to the Divisional Councils in order that their financial status and standing may be determined. Divisional Councils are then responsible to see that logs are forwarded to the Federal Contest Committee for checking.

Members are therefore asked to remember to do this, and by so doing free the already overburdened Federal Secretary from the繁重 work available for publication within a reasonable time after the conclusion of a Contest.

• Some members still omit to sign their logs. Remember this mistake makes your log invalid because anyone can type or write a list of contacts and put your call sign at the top. Your signature, checked against your original application form signature, proves the authenticity of your log entry.

DX C.C. MANAGER

With the greatly increased membership of the W.L.A. it has been found necessary to expand the staff of Federal Executives, and with the increase of secretarial work involved, which in turn we hope will increase the efficiency of Federal Executive to the benefit of all members.

In this regard VK3EE, G. I. Morris ("Morrie"), has gladly accepted the honorary position of DX C.C. Manager, and will be sending up the presentation of this certificate shortly. Morrie has also indicated his willingness to check W.S. 20 Mc. and above for members interested in the v.h.f. bands.

• To avoid the necessary delay involved in for-
warding cards to G.P.O. Box 8613W, members are
asked to send in their verification cards direct to
"DX C.C. Manager," G. I. Morris, S0, Eighty
Street, Parkside, Victoria.

In the meantime, members who have claimed
DX C.C. and W.S. 20 Mc Certificates and not yet had them issued, are asked to be patient for a week or two until the system becomes operative. Your Certificate will have not been lost!

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI—Sundays, 1100 hours EST, 7196 Mc. No. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK3WI intra-State working frequency, 7185 Mc.

VK3WI—Sundays, 1130 hours EST, simultaneously on 3550 and 7190 Mc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Mc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI—Sundays, 0900 hours E.S.T. simultaneously on 2750 Mc., 7196 Mc., 14345 Mc., 52 1/2 Mc. and 141435 Mc. Frequency checks are given two nights weekly, and the stations are given individual frequency checks. 7065 Mc. channel is used from 1000 to 1600 hours each Sunday as VK4WI query service to VK4WL.

VK5WI—Sundays, 1000 hours S.A.T., on 7195 Mc. Frequency checks are given by VK5WI by arrangement only on the 7 and 14 Mc. bands.

VK6WI—Sundays, 0930 hours WEST., on 7195 Mc. No frequency checks available.

VK7WI—Second and Fourth Sundays at 1000 hours E.S.T. on 7196 Mc. No frequency checks available.

QUEENSLAND

President.—J. F. Pickles, VK4FP
Secretary.—W. L. Stevens, VK4TB, Box 6839
G.P.O., Brisbane.

Meeting Night.—Third Friday to each month at the I.R.E. Rooms, Wickham St., Valence.

Divisional Sub-Editor.—V. H. Shannon, VK4NA Minden, via Rosewood.

SOUTH AUSTRALIA

President.—E. A. Barber, VK3MD
Secretary.—O. M. Bowen, VK3MK, Box 1954K,
G.P.O., Adelaide.

Meeting Night.—Second Tuesday of each month at 17 Waymouth St., Adelaide.

Divisional Sub-Editor.—W. W. Parsons, VK3PS 483 Elizabeth, Henley Beach.

WESTERN AUSTRALIA

President.—R. W. R. Hugo, VK0KW,
Secretary.—W. H. Collier, VK4AW, 7 Howard St., Perth.

Meeting Place.—Faulkner House, Cnr. St. George's Ter and King St., Perth.

Meeting Night.—First Tuesday of each month at 17 Weston St., Easton, Perth.

Divisional Sub-Editor.—A. A. Smith, VK3AS, 75 Weston St., Easton, Western Australia.

TASMANIA

President.—J. Brown, VK7BJ
Secretary.—H. D. O'May, VK7GM, Box 371B,
G.P.O., Hobart.

Meeting Night.—First Wednesday of each month at the Photographic Society's Rooms, 165 Liverpool St., Hobart.

Divisional Sub-Editor.—S. Easell (VK7SJ), 77 Mollie Street, Hobart, Tasmania.

Northern Zone Correspondent.—R. H. Kirby, VK7RK, 5 Galvin Street, Launceston.

SILENT KEY

VK2ZS

It is with deep regret we announce the passing of Gerry Challenor, VK2ZS, on Monday, 4th September, 1950.

FEDERAL CONSTITUTION ALTERATIONS

F.E. on behalf of the Federal Council of the W.L.A. hereby gives notice that it is intended to alter the Federal Constitution of the W.L.A. (as amended 1947).

Section 41A, as follows—Delete the word "thirty" and insert the word "fourteen" in lieu thereof.

Add 47A. **Membership Transfers:** "Where a mem-

ber transfers from one Division to another (1)

the recipient Division shall receive him as a full
member for the remainder of the financial year
provided he was fully entitled to receive dividends
from the losing Division.

(2) The Secretary of the losing Division shall advise the Secretary of the
recipient Division of the intending transfer and of
the date of birth and grade.

• Add 45A.—That in matters of finance involving
all Divisions, a majority vote of at least 5 to 2
of the Federal Council be required for the passing
of the motion.

DX C.C. CERTIFICATES

Because of repeated criticisms of the existing DX C.C. Certificates, Divisional Councils in each State have been requested to forward to Federal Executive their Division's comments on the quality and

standard of this Certificate preparatory to requesting specimen designs for a new Certificate.

Members who are competent with the drawing board are asked to take an interest when this matter is brought up in their Division and submit designs. Don't leave it to the other member!

ADDITIONS, ALTERATIONS, AND DELETIONS TO AMATEUR CALL SIGNS—AUGUST, 1950

Additions—

VK2BQ-G—G. C. Page, 39 Simpson St., Tumut,
LACN—H. S. Nancarrow, 1A Parklands Ave.,
Lawn Cow.

VK3BC-H—R. Corcoran, 23 Glasgow Ave., Bondi,
24IP—C. Fairweather, 55 Fisher St., Broken Hill.

VK3BF-H—H. Bradford, 1 Centennial Ave., Lansdowne.

VAPPE-F—J. Freeman, 96 Rosemont St., Punchbowl.

ZATE-F—T. Reynolds, c/o, S.S. "Wangan" 24WM—D. J. Medley, 10 Kennett St., Bondi.

VKAHS-O—D. G. Gilder, 58 Clarendon St., East Melbourne.

VKAHS-O—O. K. Mouller, 25 Alexander Road, Essendon.

VAMW-E—McKenna, Christian Bros. College,
Quarryberry St., North Melbourne.

LAZN-E—T. Lelliott, Owen Street, Boronia.

VKAHN-E—D. E. Neal, 58 Felix St., Woolstonecraft.

VKAHE-E—J. F. Murdoch, 29 Geddes St., Toowomba.

VKAHE-R—H. L. Archibald, 3 Peasey St., Hyde Park,
2402—E. A. Cameron, Flying Doctor Board, Alice Springs, N.T.

Alterations—

VKAID-P—176 Albion Street, Annandale,
22JU—108 Quarry Road, North Ryde.

EMI-L—Lot 46, Smith Avenue, North Manly.

VKAIS-N—11 Brays Avenue, Neutral Bay.

VKAIS-N—15 Linden Avenue, Pymble.

QAT-85—85 Sunnyside Crescent, Castlecrag
211-61 Leura Road, Auburn.

SALD—"Mervi"—Fernleigh Road, Wagga,
2422—122-124 Main Street, Wagga.

ZAKT-7—7 Chalmers Avenue, Ryding.

ZAPD-23—23 Prince Street, Moonee.

24RD-56—O'Donnell Street, North Bondi.

2ASF-37—37 Gordon Rd., Long Jetty, via Gosford.

PAWJ-25—25 Hendy Avenue, Collaroy.

W.I.A. ACTIVITIES CALENDAR

Sept. 22-24: VK-ZL DX Contest (a.w.).

Sept. 25-Oct. 1: VK-ZL DX Contest (phone).

October 6-8: VK-ZL DX Contest (a.w.).

October 13-15: VK-ZL DX Contest (phone).

VKE305 - 5 Service Street, Ballarat
 3HU- 9 Bellfield Avenue, Fawkner
 BNW- 1 Oxford Street, Box Hill
 2NZ- 1413 Beach Road, Mentone
 3WD- 232 Victoria Parade, East Melbourne.
 3MD- 100A Station, Coburg
 3FW- 1 Coote Street, East Melbourne
 3GN- Fairmont Road, Newtown, Geelong.
 3ANW- 1 Oxford Street, Box Hill.
 3JW- 120 St Kilda Road, South Yarra.
 3ASB- 28 Westerfolds Street, Box Hill.
 3AXB- Flat 3, 19 Jersey Street, Talbot.
VKE4KD- Chester Street, Thursday Island.
 4ZB- 37 Ridge Street, Northgate.
VKE5VW- 120 St Kilda Street, Elsternwick
 5EV- 187 Dulmara Road, Glenelg
 5MZ- Burgeon Street, Broadview
VKE61-41- Sullivan's Street, Leederville
 6GE- 4 Flying Doctor Street, Meekatharra
 6XG- 47 Lonsdale Street, Perth.
Deleted and
VKE7AC- now operating under VK3EJC
 6NY- Cancelled, now operating under VK3AHS
 7AM- Cancelled
 7RAN- Cancelled
VKE8-10- Cancelled
VKE9-14- Cancelled, now operating under VK2AWM
 5HW- Cancelled, now operating under VK4TU
 5EV- Cancelled, now operating under VK2AD
 5HJ- Cancelled, now operating under VK2APB
 5KGN- Cancelled

FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

The new address for the Canal Zone QSL Bureau is KZQSP, Isaac R. Price, Box 64, Balboa Heights, Canal Zone.

The I.I.R.C. Short Wave amateur Convention in 1950 was held in Bad Homburg, near Frankfurt (Main), Germany, from May 10 to 12, September 1950. The Convention was organized and hosted by the German Society of Engineers and included lectures on all aspects of the technical side of Amateur Radio. An exhibition of Amateur radio equipment was held, and numerous contests including a 2 metre and an 80 metre competition were arranged. Other entertainment included tombola, raffles, auctions, and a post office provided a stamp box for mail matter. The entire function was broadcast by the Convention station DL0RKT over the Amateur Bands. Many visitors from adjacent nations were present at the Convention.

you might let the fellows know that if I owe them cards, I have not received them, and my log for dates previous to June, 1950, has been lost. I will be pleased to QSL them if they will apply direct. My QTH is Box 887, Diablo Heights, Canal Zone.

and 10 meter bands during the forthcoming VK-21. Contests will be held on a weekly basis, approximately on 30.052 Mhz. and specific contests on reception.

Yet another for the certificate holder. The S.R.A. is sponsoring an award for Ham's who have worked the whole seven Swedish districts. European stations who have send in cards proving they have had two contacts with each of the districts will receive an award. Each contact must be made in card form or one contact with each of the districts. Contests must be post war. An application for the award must be received by the international reply coupons and be mailed to the International Reply Coupons and be

NEW SOUTH WALES

The monthly meeting of the Division was held at Revere House, Gloucester Street, Sydney, on Friday, 13th August, and the meeting was opened at 7.30 p.m. The programme was well received and a large number of applicants admitted to members of the Institute. Visitors present included Peter Holdmann, B.H.R.B.I., who is visiting this country. Peter expressed great pleasure in being able to come along and meet the boys. Also present was ZLBRA, who brought with him a personal gift of 250 £1 notes from UK internees in the BX bands. The President, J. J. Corbin V.K.S.W.C., expressed the pleasure of the meeting in having VK3HJ, one of the Recepids lady Amateurs, present.

VALE VK2ZS

The Council of the N.S.W. Division of the W.I.A. regrets having to inform members that it received, on Monday, 4th September, an intimation that our esteemed friend and colleague, Garry Challenger, VK2ZS, passed away.

Garry was widely known in the Amateur ranks and was one of our most popular VK2s and attained distinction by the cap-
able management of amateur stations in the North Coast Net during the recent disastrous Kempsey Severe. Since his return from war service, Garry's health had been indifferent, as was the case with his activity in the public life in the community and committed to Kempsey Hospital in a serious condition. Fortunately he recovered sufficiently to be discharged to his home and is reported to be doing well.

On Monday, the 4th, however, he suffered a relapse and failed to rally. His friends were shocked to hear that he passed away at 3 p.m. So passes from our midst a terrible loss, a good husband and father, and a sincere and affectionate friend - Vale, Garry!

To his widow and two sons the Council and all members of the Institute extend their sincerest and heartfelt condolences and expressions of sympathy.

The Wireless Institute of Australia was represented at the funeral by Mr Col VICKAR, VK2VCA, and Garry's close friends, who placed a wreath on the grave on behalf of members of the Institute.

The Hunter Branch of the N.S.W. Division of the Institute was represented by Jim Cowan, VK2CZI; also present was Peter Alexander, VK2ZK.

Mr. Menzies, on his return from overseas, regarding the cementing of friendship with the U.S.A. and its peoples, and presumably with other countries. Correspondence received from the Queensland Division of the Commonwealth Council of Ex-Servicemen, from Mr. Waldegrave, and the President, V.E.C., asked that members' knowledge in the cause led interference on the official channels went by V.E.C.W.I.

Dr. Allison ex-V.E.C.W.I. was called to be present and Dr. Alexander, also from the Island, was called for early showing circumstances permitting VK2XU, as Master of Ceremonies, permitted "prizes" from the Commonwealth lucky dip, and great was the interest shown. After the ceremony, Dr. Allison, after dinner, gave a vote of thanks to Wal for his good work was passed by acclamation. The meeting closed at 10.00 p.m.

WESTERN SUBURBS

JAMA, Joyce, has been getting excellent reports from Europe lately, using her new 8 Element beam. NJ has been grabbing all the DX around the world. The antenna is a Roltex 7-1000 with a full wave antenna. nice quality work. JAPT has had his new beam, and all the locals are waiting to see how it works; there is keen competition among the DX stations. NJ has been doing well in contests, and is a master of making 'f's. The "JAM" pole is going up, and the race one soon. JAHW's pole arrived standing, many a bag of cement went into

2ACD nothing has been heard of Frank but he must have got up and had a walk or went to the beach in the new shack. 2B7B has been calling regularly using a vee beam. 4AD5 has settled in at the new Leidenbach location and although his folded dipole is only on the roof, has been receiving S9 reports from the U.S.A. 2Q9 has 112 contacts on 80M with the help of the old 100W amp. 2B7T has despatched that their will be a two element beam in working well. 2RN has a three way QSO with YN4CB and another new one on 7 Mc. recently. 2ACD has just put up a new half wave dipole and is getting good later state reports; keep it at Ted and the DX may soon.

NORTH COAST AND TABLELANDS

Rain, rain, rain and more rain, together with poor conditions, have been the order of the day in the zone with the one exception, a rare bit of DX reflected in 2M. Doug called five long CQs with "K3D" and on his sixth CQ a strong signal came in from "K3W". Does anyone know of another Ham working More? If not, Doug claims it is a world's record. Another record for the North Coast is the Asciuate owner/operator, the one and only Percy Sera, Associate Member W.I.A., of Bellinger. Fred hopes to get his ham card soon from the Department.

Percy has the first K3YQ four letter call sign K3YQ-AM. Good luck to you Percy, your wife and family from all Radio Amateurs. 2M is having a visit to Sydney to the Dental Conference and no doubt Fliss will be seeing a number of the gang down there. Fliss and wife are on their way to

JKR has another harmonic. 2AJT going to Sydney holidays, liable to be found in any junkshop. The Liasons gang have been very quiet of late, mostly working at their new business. 2ADL is putting a consistent signal to 2ADE at Casino. 2JIM also erecting beams for 6. 2ATE has staged a comeback and is working beam 40. 2BL has a new antenna and is working beam 40. 2BT has a new QTH. 2ASW goes back on his new beam. 2AFM does more Hamfest than transmitting and drops in on 40 some times. 2AAP has returned home from Hawaii and is working beam 40. 2ABR has a new beam and the wife will be putting up a we beam from the hill to hill attached to two 100 foot dead trees. The center would be 600 feet above the ground. No word on the date. 2ALX intends to have his holidays spent in the District.

switching and 812 in total. It is western to the North Coast group is Bill Grant, SAWG. Bill has a few miles out from Coffs Harbour. 812 busy with six masts and hopes to extend 812. Both works 2L on 80 metres with five watts and super modulator.

HUNTER BRANCH

We have an excellent lecture series by Mr. B. H. Bunting, who is giving lectures all over the country. The lectures are being done a wonderful job for the Institute in getting our members, and holding the interest of older people. While on membership, it is pleasing to note that at our meeting last evening, 10 new members joined the Branch. We had 220 who attended, including the meeting of the Boys' Branch, most surely have been proud to see the Branch so recently established was, an ex-President of the National Fisher Club. As the September meeting was the annual meeting, we had a few moments of reminiscence. Congratulations were given to the officers for their work, and the next year one of whom great progress. Once again the State President EYC and Councillors made the trip up to Sydney for the meeting.

The R.P. Council went off with a bang, and a large number of Ringers from other parishes participated, both there were some who did it, and we will find them an R.S. or something next year if they don't—watch out! The DX bands of the Branch are all "steamed up" for big scores in the VK-XL DX contests.

Lakeview had good times, even took a portable with him. SANA still rocks. His homepage has taken some licking after long comparisons with the RAJO. The family have now bought Notes out of the kitchen as the RAJO is now beside the main entrance. WY still rocks, though new DX is appearing. ZNX last hit 120 in March. My spy even reports Shanty at local dances whenever home week-ends. Would you believe it—SANA and 2PP were able to work F4K+R on 10 in the dead of a winter's night?

That settled, 2AOY's shack routes into its own when publications are "secret". Things are serious over at Stockton as 2AMY is still on air and working plenty of DX. BII managed a big score in the R.D. Contest. 1PT has moved to New Lambton no guess will be back on again very soon now. 2ASB shows just what can be done with a 100W rig. 2AAT is still working DX. 2ABP is working plenty of DX. So from us, countries are sneaking up, has XE, XB, W, XHO, L etc and the antenna is still only about 80 foot high. Also have a report that a new Ham is on as of "Question, namely Col London, 3AZL up at the Port. Would someone in that area please let me know? "What?"

The big news in the Neosho area is the appointment of W.L. Salmon as Sheriff. Police Superintendent and in charge of this area OT will remember W.L. and his activities in the past. Branch men have been welcome to ZSA to the district and hope to see him along at Branch meetings. Due to a printer's error, "Larry Fifteen" cell was wrongly given to Mr. E. S. Fife (Fife's cell) sorry Mr. Fife. Hope to see you all again.

after a long absence, has made some very fine QSOs with 2YV on 2, not bad for winter conditions! The tower at 206 Thornton is still receiving much attention.

SADS is very QRL at the new QTH on 5. But hopes to have gear ready for the DX season on 5. The 15/16' beam is up and the antenna is working well. It was mounted, it took only about six hours. Although only 25 feet high at present, it is to go higher 24GD going well with the portable on 40 and 40 having fun with it too. Remember George, I sold you 40' 4c/w and another 10' 4c/w with QSL. Mark 2000 at 206 Thornton P.O. no longer here but is still inactive. 2ZG put up the highest R.D. Contest score for the Hunter Branch next to 1PA and 2ED we learn, congrats Jim. Don't miss any time next year Jim. 2ANL comes in at lunch time 10 from Thornton. SADS will be again soon, now's his 50' 51 and a good receiver.

2FZ hopes to meet a soon. The v.o. at 2XG's is at a stand-still—has been very QRL. The August sked of the Hunter Branch Emergency Net went off very well—the September sked has been put forward to 10/9 to mix the 10/10 Contest. The 2XQ and 2ANL's mustn't miss this one—gratefully the Net is still in need of 2A01 (or lower) stations—anybody read these notes?? 2XQ, the Net Control Officer, is getting very "cagey" these days—will be hard to handle—it is too simple on 550 KHz at night—the net will be on 1000 KHz on Sunday afternoon. 2XQ will be in some good work in the R.D. Contest.

2TYS has been in holidays in Greville to see 2ADX. Bob didn't think he would make it at one stage of the proceedings. 2XJ were very active only last month. 2XK has been to the Hunter Branch R.D. Contest, his 1st one using a roadster. 2ANL was only active a couple of times during the recent flood. 2ANL with his "4' 4w" is getting out well? 2V1, mostly on the last band—must be getting out well? 2XK has been on 21MHz but has been away for a long time from the VK1000 Test. Most disappointed man in Newcaste last month was 2AHAs who was all set to go in the R.D. Contest, but missed out due to family illness. Will make up for it in the VK-XL Contest though.

COASTALLES AND LAKES

Conditions have been poor on most bands during the last month, were hoping things would improve with the warm weather—especially on the v.h.f.s. The old 80 metre band has been the mainstay for sometime now. 2ANL still does good work in the few contests he has entered with the shearman result but managed to get up a total board for 2ANL and seems pleased with the idea. Has been getting some calibrations for his 144 Mc. set-up. Singleton been kept on the map by 2ZB on 28 and to 2V1 who has been on 28 and 10 with 2ANL on 10 and 5. 2V1 could find only 10 and 8 talking of getting a v.o. going. The Kurri Kurri group are not very active, don't hear 2YO and 2XQ much—aren't found on 10 and 5 when active. 2XK has been quiet these days. 2ANL only came on the air a week ago due to getting completely through the west 10 and 8 are his favorite bands 2A16 is seldom heard, plenty of gear but busy otherwise.

2DZK has a few more big and places wired up to 2XK. Rx running, it shouldn't be long now! 2YL is another whose activities are limited due to lack of spare time, active on 80 and 5 when time permits, hopes to bring up small rig on 144 Mc. 2ADT (Always Doing Things) has done it again—very good results. 2ANL has had his 21 MHz take off the table and fractured the plate. Fortunately it was only the xtal that broke and Jack didn't feel half so bad when, after picking it up again, he found that his specially made and highly modified 21 MHz circuit was still intact.

I heard Jack was back on fractured xtal stock together, talking of making a new xtal for the mike. Also has just put up a new four element beam on 50 Mc. His frequency meter finished and calibrated. The last Jack's busy time (school term), he can't seem to find any time from 80

—2 metres—3.4m.

At last I can have notes of the Lakes, they are much appreciated, and my thanks to 2ARV for letter and 2RU who sent notes via 2ADT. 2ARV from Ottawarra Point is only home at weekend and doesn't have a radio room, don't know what to till 2V1 August used 2V1/2ZT with 22 watts 7 Mc. e.w. 17 Mc. QSO was with 2XK who prior to the war, was 2XK at Wronce—there was some talk of Wyndham Radio. Chats reports 2OC and 2XK are still active on 10 and 5. 2XK was still active on 20 and 40. 2XK was very active these days, recently joined staff at 2XK, 2ANL another not very active but plays golf and is also a pilot which keeps him busy. 2XK not active since June when storm wrecked antennas. 2XK is on 6, 10, 15, 20 and 40 while at 2XK. 2XK is on 20 fairly quiet, on battery supply, 2XK for a change fairly quiet, working 40 only, but going to try 50. 2AID from the Eastans not heard, same goes for 2ANL

—how's the stars Lat? Any 2X—2XU has added a QSY to his 11, received working 5 and 40 but twice times. Major can be found mixing concrete putting down paths—seen pushing a wheel barrow away from his pen hall—reputedly moving dirt, but the gang say he is moving the hill so he will make 2L next season on 6—which is it Major?

WILDLIFE HIDE

Have gone through this month's notes and every time the word "food" appeared the red pen went to work. 2XN can't get away from 'em though and 2YN at Bourke has been in the swim this month. John at the only Ham in Bourke he welcomed the arrival of radio men. 2XJ helped pilot the "Ducks" through to Nyngan where 2QA took over Jack got care packages and lost one and frantic calls were heard on 3.5 Mc looking for 2XK. The other place to go was 2XK, and there he was over the way say, that the "DKK" went straight through "DKK" = "Duck Egg." Upset Jack as much he unstrung something about his gun and walked out on a sled with 3BD.

New info to these notes is 2XN. Den is at Nerrigent West and will be remembered as old 2DME. After a very long silence, 2FH, St. Mary's, popped up on 7 Mc with a new rig, 513 final to be modulated by a pair of 511s. House building has kept him busy.

2XH Katonoma heard only once during the month on 7 Mc phone as also 203. Jack did good job in the 2XQ test. Katonoma seemed to be the "most favoured new" 2XJ Parkes has his new transmitter working. 2XO has a new 2100 Rig. 2XH is on 7 Mc. Wonder where 2XH has been for a 250 in their shack? Thanks for the other Parkes news 2ANL has been on 5 Mc phone but suffering re relay trouble. 2XN rarely active and 212 at Mackstown, QM'd by rabbits.

Ronald Forbes, things have been very quiet. 2BT still putting the finishing touches to his perfect switched antenna system. 2ANL makes 50 Mc beam with a converted 522 and planning a 50 Mc beam and an automatic caller. 2WB mainly keeping 17s steady on 8 with 2AM. A new lathe is occupying the rest of the work shop and 2XH has a 250. Another good Ham left the West Zone 2XH has been transferred to Newcastle. Sorry we didn't make that personal QSO while you were out West Wall. 212 (that's Ren's item not eleven) still pops up for a rare contact on 7 Mc. Likewise 2AMR up for a rare contact on 7 Mc.

2XK Dutton, putting our first signal on eighty Jack is expecting a visit from 2YV and previous activity on six after that. 2IN nearly finished new frequency meter which will make Bathurst the WWV of VK2. Will the new job will assist tune a phone, and eventually split the Rx to a circ. If not the same would be best to have a 2100 Rig. 2XH active? Yes. Have heard of but not from, 2AEC during the month. Peter Ross is off to the Coast—not enough water round Coonamble. So not a very good place to be. 2XH has been working hard to new QTH and terrible noise still comes from North Katonoma soon. 2EX has acquired another transformer and is on 40 phone. 2XZ at last made the grade and is operating from a linen press, tired of QRP already, so will go QRO.

SOUTH COAST AND SOUTHERN

Activity in the zone this month was very much below that of previous months. The R.D. Contest brought a few stations out of their winter hibernation. 2XW was heard actively engaged in the Test and a brief exchange of scores had us fairly closely matched. 2APX was also active on 10 and 5. But we haven't heard his news to date. He had an experimental signal and seemed to be holding his own. 2PI heard but his signal lacked the usual punch that is usually associated with his transmitters. According to 2XK he has a new 2100 Rig. 2XK has been reporting nothing of interest over there. 2XQ heard late in the Contest working stations hand over hand. No news of the Geelong or Wollongong gang. 2XJ has been too busy to play Ham Radio and the complaints of the cold weather.

2AKS far too interested in the slope to worry about Ham Radio. Not many signs of an amateur out of these days. No news of 2XO or 2TA, guess both of these chaps are far too busy with their properties. Heart congratulations to Al More, 2BW. Mal Robinson 2BZ and Brian Mitchell who were presented with certificates of merit for their outstanding effort during the flood at Wagga and the Lower Riverina. During the R.D. Test a brief C.Q. R.D. brought a reply from 2WRD! Must find out whether that contact should be a bonus or not? ——————

VICTORIA

The held on Wednesday, 6th September, at the usual place, the Melbourne Technical College, Bowral Street, Melbourne. There was a good attendance present. The President (Bert Sammons) opened the chair, declared the meeting opened at 2000 hours. Visitors welcomed to the meeting by the President were 2ACE and 2AUM and were extended

a hearty welcome. The Secretary (Dick Dyer, 2DY) read the minutes of the last meeting and no business arising therefrom, these were put to the meeting for confirmation and carried.

The agenda items for the evening was a film show (the first on for some considerable time) and the titles were "The Flying Doctor" and "The Outback Day". The film dealt with the activities of the Flying Doctor Service and the part radio plays in his work among the people of the outback. The 2XO cube was very simply explained with working models, also the construction and assembly of which can be very easily accomplished. It was a pity that the show only lasted for 40 minutes, as we could have taken 240 minutes of this type of film. All present expressed their appreciation of the show.

The next item was the presentation of the annual report and the adoption of the full report of the last Council meeting concluding all that happened at the meeting and all present seemed satisfied with Council's activities. The next question was the "Food for Britain". This raised a terrible amount of controversy. It was suggested that we wind up the R.S.O.R. and ask their opinion in relation to food prices, whether they want us to disadvantage with the scheme. A short interval was then taken. While the members were having a "water" we invited the Secretary very busy at the table (solving out membership forms (we have now over)

Upon resumption of business, reports were called from the various groups. T.A.C. reported on the 2XQ test. 2XK is not competing in the major reported amateur under 2100. The Treasurer being absent, the Secretary read his report and this showed that the finances are pretty good. Class Manager reported on the last examination and said that about 100 students sat and one was awarded the certificate of proficiency. Class Manager, Jack Groves, told the meeting that owing to a lot of work involved in checking new gear, the next hand out will be in three next month (October). The Secretary reported on the 2XH amateur publications and gave a concise report of the programme. "Don't forget you class, to let us have your ideas."

Our Membership Secretary has started a new drive for new members and is meeting with excellent results. The Secretary reported that the Association passed a vote of thanks to the Membership Secretary for its fine work. The T.A.C. Secretary gave forth on the difficulty of obtaining lectures for the general meetings. Surely there must be plenty of local amateur members who could expound something to the general meeting.

The agenda items for the next general meeting (October) will be a lecture by 2ART on "Sunspot Activity." The subject is, we understand, very interesting. Be well! Illustrate. Be well! Illustrate with charts (which go back for some 40 years) with how to predict the prediction starts the easy way. This should be one of the best lectures that we have had for some time. If strange events can be made the lecture will be well received and sent around to the different zones, names being no further business, the meeting closed at 2200 hours.

PERSONAL JOTTINGS

BJD getting ready for the coming v.h.f. field-day activities; Lib. Herb, he's hope that you can get a little more power into that "Lento". Now that gas rationing is over, 2BL will warn up his shack and resume activity. Bert a visitor last night was quite friendly, may appear again. 2ACB was here who is the best VK2 car builder; we have our ideas on this subject. 2XZ had difficulties in erecting a Mountain antenna; 2JR and 2AUX were present to offer advice. 2AJC we understand, knows all about class racing and he may be bringing those commercial in the 40 metre band.

Things must be crook on 20 when one hears 2HF on 40. 2JE and 2JL are doing the rounds of the Western District and, of course, have a portable rig with them. 2EWS was here to show how to build crystal oscillators to 20c. 2LN still worried about harmonics in the 20 metre band, what's wrong with 40 or 30 Len?

VICTORIAN RAILWAYS INSTITUTE WIRELESS CLUB—VK3MMI

The above-named club held its monthly meeting on Thursday, 11th September. The business was only dealt with after which a general discussion on future activities of the club received a lot of support. The club wishes to state that the 40 metre rig has been put into action again and would appreciate any contacts on 40 metres. The club proposes to have three dinner meetings for 20 Mc. at an early date. The next club dinner will be held on 14th September and 18th November. Our meeting nights are the first Thursday of each month.

MOORABBIN RADIO CLUB

The annual general meeting of the above club was held on Thursday, 11th September, at the club rooms, Town Hall, Moorabbin. There was a good number of members and visitors present and the President, 2ME, in his usual breezy style, gave them a right royal welcome. Owing to change of jobs, the sec-

rotary, Ted Scott, tendered his resignation and the Assistant Secretary, SALM, was appointed to carry on. The meeting placed on record the good work Ted has done and wished him well in his new job. The main item of business was the function of the rules of the "Honorary Membership Certificate" for Australian and Overseas Hammen. A full set of rules appear elsewhere in this issue. On fulfillment of the rules, an illuminated certificate of Honorary Membership will be issued to the successful applicants. This article asks you to read the rules very carefully. Further details can be had from members when in QSO.

Len ("Lendo") Jackson chose for his lecture "Sound on Film Recordings". After the lecture the President responded to the question of the practicality of Levy's film efforts. SARM asked on the practical night recently held and stated that the transmitter is well under way. The club authorized Ed to purchase a suitable receiver for club use. Details still remain in the form of gear for which the club is responsible. John Dwyer reported on his visit to the V.R.L. Radio Club's annual meeting and conveyed that club's greetings to this club. There being no further business, the meeting closed at 2350 hours. The club meetings are held monthly, the third Saturday of each month, except at the Town Hall, Nepean Highway, Moorabbin. The next meeting (26th October) will be a lecture on "High Frequency Transmissions", given by a "high" up man in the R.A.A.F. We would like to see as many of the boys as possible at any of our meetings.

EASTERN ZONE

The main subject this month is the inaugural meeting of the Sale Sub-Branch of the W.I.A., which takes place on 15th August at the residence of SLY, Ross Schmid. Sales present are SBS, 3GO, 3ID, 3LG, 3AR, 3AE, 3GE, 3AHK and a spring ponderer. Bud Pender of the R.A.A.F. Bud has his ticket, but as yet no call sign. Our Zone 3rd relay, 8QZ, opened the show by reading a long serial, full of "here-and-there's", pertaining to the formation of the sub-branch, and it was decided to carry on with the sub-branch, in spite of all the long words in the serial. The group will be known, locally at least, as the Sale Radio Club, with the object of encouraging and assisting the radio minded lads of the district, to extend their knowledge of the noble art of Ham

Radio and eventually gain their tickets. We intend to hold regular meetings in our various towns and this should give the beginners considerable aid through getting to know each other and being able to ask questions to which the handbook don't always seem to have the answer.

SLY was elected President and SBS Vice-President; Howard Vining, 3QZ, who enthusiastically reached his height, pulled out a bundle of WIA membership cards and signs here, plus a few more.

The four back sides of the new page of course! On conclusion of the meeting, the gang got off with the very nice supper served by the much-better halves of SLY and 3GO. We then inspected Bon's radio and pencil gear which is being built up and after much discussion, a proposed howdah.

The following evening 3QZ attended a meeting of would-be Hams in Bairnsdale and it looks as though 80 metres will have some more QRM in the near future. Graham collected five more applications for the W.I.A. and there, with one from Trisogram, gives the now ten new members for the month! Best that, if you can!

Apart from the foregoing, personal items this month are scarce. SBS is the proud possessor of a new 1000 watt 1000 volt GPO. Keith also had trouble recently with twisted feeders, have you all woken up yet? 3WE has been very ill, but is picking up now. I am pleased to say 3UR/3YL have the 6 metre beam 45 feet up now—3UR/3YL, er, er, er, have been inactive for about three months so someone else been using her call sign. Any decent cards given?

The hook up proceeds each Sunday as usual. 3PB, 3LV, 3TR and 3AEB being well to the fore. A new power trans. has been put in for 3AHK so after three months of phone silence, he will be back on the 80's again. Let 3AHK know what's doing chaps, especially our Bairnsdale associates, as if no one can hear, no one can write notes.

SOUTH WESTERN ZONE

On the 17th August 3AGD and your scribe, 3AKH, dropped in from the hills of the Grampians in the southlands. As they were travelling in two separate cars, it was decided to install 144 Mc. mobile equipment in each car, consisting of superheterodyne modulated oscillators. Lots of funny effects were discovered in the timbered and hilly country while operating mobile. On the Sunday at Mt. Buffalo, we had a

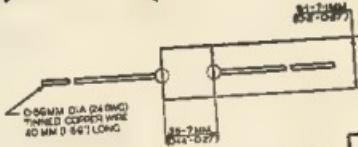
welcome visit from 3ER and SAT who brought their XYLs and harmonics up for the day. At the end of the week, bruised and tired, we started for home, calling at Ken's (3ER) shack on the way from Bairnsdale from where Ken said he would be able to visit us out here, he would have been able to tell us all about the snow over there. Bill also has a 30 watt modulator for his TA212 coil and in no time at all will be really pushing out a signal. Bill decided on another day to blow the cobwebs out of his 20 metre antenna and doing worked him! some fine DX. 3EX's new 20 metre beam is working out fine and the country Net is really climbing. 3HQ will soon be shifting into the 30m band and when you have to shift the rhombic, we've been known to do it.

3MC is still working the DX on 40 and only wants Europe for W.A.O. on that band. 3EU has his new controller, carrier rig going, says input swings from 10-70 watts on speech. 3JB has been having trouble with his 1000 watt 1000 volt GPO. Bill has a signal too; believe Bill has been having trouble with the eyes again, certainly hope it is better by the time this goes to print.

By the way, I would like to remind some members that the 3rd of every month is the South West of EVERY month at 10.00 a.m. would also like to ask those chaps who have not been on these hookups to make an effort to do so in the future. After all, how can one or two chaps discuss matters relating to the whole zone.

The Geelong gang have not been as active over the last month, but I think they have had to do with it, also some little 3AOE has built up a new 31MHz. also has a new mike which has improved his quality. 3AJT will still working some good DX on 20 metres; has a new Rx, a "350". 3ABF will soon have his new beam up for 20 metres and has been bringing up his 1000 watt 1000 volt GPO heard on 80 recently. 3ANL has made a xtal locked converter for 144 Mc. 3AKE still having regular contacts on 144 Mc. is building a new converter and has put a lot of work into it. 3AOJ has a new 1000 watt 1000 volt GPO. 3VKA and 3CMZ 3AGN is now voice controlled carrier, in spite of his very low antenna, he was heard working VR4 recently. 3AEC has built up a portable transceiver for 144. 3ABK had a home for a short period and was on for a time. 3BU had a couple of contacts on 144 using his 351.

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GREEN BAY AMATEUR RADIO CLUB—VK3ATL

A very interesting evening was spent by members of the above club at the first meeting for the month when SARE gave a practical demonstration of the 250 ft antenna and how extra gain could be obtained by adding comments to the antenna. He also showed a three or four times difference in the gain of a simple 144 Mc. antenna. Ed also showed how a simple 144 Mc. antenna could be made up in a few minutes and the size of materials required proved this antenna to be a good one. He also demonstrated the "Circuit Breaker" which is a combination of the elements of the antenna and the feed line. This device is designed to prevent damage to the antenna and the feed line if there is a short circuit.

The following meeting, the business of the club was disposed of rather quickly, then members paid visit to the shack of SABE. Alex runs 100 watts on a 5STC and operates on 20 metres and has a beam ready to go up on a lattice mast, his Rx antenna was being worked to a support, safety style, prepared by Mr. Bell.

The next meeting took the form of an Exhibition Night. This is the first of its kind held by amateurs in Gedling and members brought along equipment made by themselves, displays gear and made a very impressive show. The view also was the club's new premises situated in the former hall of the U.I.A. which the club feels quite proud in占有。During the evening SABE, the club's transpo, was on the air on NO, 40 and 2 metres and in spite of the wet night, there was a good roll up.

NORTH EASTERN ZONE

A straight line is not necessarily the shortest distance between two points, as says our teacher of maps for the sea. Still the **SEASIDE** now, this may be longer, but I have had a good time. I have been trying to break through and contact **STANFORD** on 344. A welcome to the ranks of 344 is **EVY**. I am still a pupil for Morse by the name of Peter who is a school teacher over Benalla way. Hope you are still as quick there as Peter; good luck. I am sending a postcard (in fact) across to you, and a postcard to my correspondence. This month has brought all in the way of notes, so have been a struggle to have any notes at all.

All on lunch hour quite frequently, but 3APF, 3V7, and 3HZ still preferring the higher frequencies. SACK building planes, only decent job of who was to fix band spread on his Rx which had the habit of沉默 at critical times. 3VBG now in Queensland looking at tall timbers, having received from D.C.A. Boy does he get about. 3AGT hasn't been heard lately, too many heterodynes near

Last time hook up didn't go too good. SBR was in the position to do it. SAB off on themselves after putting in a few words. JAPF in McLeansboro NED making smoke signals as batteries were low. Henry, couldn't even find you. You boys were there about 8PM not even using his modulator. While I didn't hear his voice, I am sure I heard a lot of crackles each time he came on. Maybe 'twas me that was hearing things. I'll copy you Henry, but I'm not saying much. Congrats on working that

Ron Gibbs up. Wm. George may now have his ticket.

as we no set no rail sign. Good houting Rom. 3:23
I am up to date with the rest of the other with a new car
Jacques. I am told very good. I am not
in on the job Howard, every time you open the
mike there is quite a hum, as none of the boys
are told you. While I have been listening I think
you are right. I am not in on it. I am in a train meeting room.
I trashed in 144 by atmosphereper over 1000
last night, seems man-made. Alan why not look
at local flicks, DC generator?

JACK worked a ZL on 49 with e.w., who was the
old man who owned the ZL. Getting him to estimate to
the 24th out. He said, "Well, I don't know. Here the
H.U. is working on an automatic keying arrangement
for v.h.f. Can't say much without being over-
heard at the 24th. Local members were conspicuous
there this afternoon. The members were
gathered at "Sergey's". Reason, inadequate time for some
officials to organize anything. More time, next time
the country members please is the cry from up

Don't hear the end of some hook-up due to urgent job on the car. However, I would implore you to allow me to say it quick, be like JACK and run out of teeth long ago. However, Howard, I like the suggestion of a get-together before the next Con. I have more about it, but I am not sure what to make it about. Well, with organizing, writing up, making a copy notes, I haven't much time. Sorry, forgot to tell you, XYL is in hospital. Will busy I have

CHIENEL AND

This month we have very little news of activities at headquarters in Brisbane. However we have a wealth of zone news which we hope will make up for the lack of notes on general meetings, etc.

During August visitors to Brisbane included 4EL, 4ER, 4RH, 4LB, 4SN, and 4CU. Those who went

along to the Exhibition had a good look at the W.L.A. exhibit. Although small and lacking in some respects, it was nevertheless a beginning of what we hope will be something worth seeing at future Exhibitions. Exposition Park also had a 100-Watt transmitter, Class C Wave Meter, N.C. Silver Anniversary Receiver, Oscillograph, Commercial S.A.C. Transmitter, Portable Gear, and DX Cards. All equipment for Ham Radio. Items were \$49.75, \$49.75 and \$49.25. Whilst near the exhibit for some other Hams to come along (whose names I have forgotten) who operated the good old "cooker" days at Nambour. Then helped some balding Hams to fit in application forms for membership and last, but not least, met our new Latvian W.I.A., who is now living in Queensland and operating as VK4LJ.

String to the holidays I was not a participant in the E.D. Contest this year, but did manage to take time off to listen for the period during the Contest. It was noticeable that the standard of operation was very high and showed a marked improvement over last year. For future Contests I suggest that Contest be limited to any two consecutive hours operation between 0400 Saturday to 1800 hours Sunday.

We have been asked about our enhanced QSL

We have been advised by our outward tel Officer that VK4RL, 62 Manilla Street, East Brisbane, is handling this section until further notice.

He has been on the sick list for some time. Everyone will be sorry to hear of Bob's illness and I know I am expressing the sincere wishes of all in wishing you, Bob, very speedy recovery.

BRISBANE ZONE (4CC)

47% like most of us at times, has had more than a passing interest in hearing the dangerous methods of overcoming the gouty gout that were suggested to Arthur during the month—some even went so far as to infer that Arthur's gout had been overcome because the right hand was held high and he must have all understanding with Arthur, another, we think, 47% has been off the golf course, 47% has been on the golf course, 47% has been on the links in building a heart through three element health. The tower is a simple but very effective ladder type, which was easily pulled up by four of us, and the top of it was a flat platform from which we sat up on the top of it with all the confidence of a veteran. Speaking of climbing towers I suggest you take a gander at the "ants" walking around the top of the great iron tower on the top of the Braeburn G.O., then you can go home on your umbrella to foster with confidence.

Lyle means other Brisbane stations, 4FB and 4MD have changed over to zero bias Class B 887 with very good effect indeed. By the way, the 4FB to 4MD change is being made in two stages so that Mick has to just press a button with his foot 4BD should now be stirring up the DA with his own rig, he did pretty well in the recent trials at the new site in the hills above the station —he likes next door to 4PF, wouldn't you? Well I said both the voice and quality that 4FB is pushing out is really super, both Tom and Ken have been promoted to have Command flight rights, SP 1000, 1000, 1000, 1000, 1000.

Speaking of 4NC, his photogenic daughter kindly offered to take notes of items of interest as she visits the OMs, and has them typed for inclusion herein. Better watch out, or you will be quoted verbatim as Clive is a shorthand typist. I am told that 4JV has other loves besides Ham Radio, he was observed going to the Grange Archery with a gaily coloured tackle case the other

hope to enjoy

TOWNSVILLE STATION (4EL)
4EL now world wide authority on relay and their adjustments and electronics have still improved over the DX's with a rather drunken up and down element beam. 400W mainly on 28 Mc and testing out screen modulation with clipper, and it sounds good. 4EL has put out a new set of coils for 14 Mc and 14 Mc and puts in his share of the DX. Keen - keds with 938W in Madang. 4QD has been heard calling "CQ DX" and does quite a lot of listening on the band too. 4WV putting out a nice sign and doing well. 4XK has been working in to fed job, and now has a hole in Europe and doing quite well, also getting ready for 28 Mc. complete with beams. 4GF, the old Edger, heard in

4KD not heard lately due being QRL at local commercial station. 4RJ has been heard with some

also c w lately as a change from phone. Graham is said to have been chased by a big bad wolf on the air one night. 4EL also at the same QTH as 4EL - a matter of fact, they are approximately 30 feet apart, how's that for QRM? Doug is building rig now and will be N6DD final just as soon as he gets it built. He has a foreman's job for while, has two nice beams on 14 and 28 Mc. 4EL out at the local National station in the muga, has lots of time and space and is making full use of both by trying out all sorts of arrays on Europe and around. 4AP had the right idea when he moved up to his 400ft shed with QSYA. General conditions in Tennessee have not been too good, the best periods for 14 Mc have been from 0700 to 0900 and 1300 to 1700 hours. 28 Mc quite dead and 7 Mc, fair for Yanks in the evening. Eric also reports that the best periods for him have been heard in Brisbane, his latest being QY and EA6, and has worked 230 European stations June and

DONWHS ZONE (4CG)

General grouch in this area is "conditions". And we say for the ungodly tenth time, never in 32 years of operation on the Ham bands have we known conditions to have been as poor. This year noise has been up and activity has been down. There is little general activity in this zone, 4WY is most active, followed by 4KX, 4CX, 4KZ, 4KZB, 4CX, 4CK, etc., on one day recently, Wazebur was back on the map, 4C1 active mostly on 80, but still listening, an awful lot on 5 meters, Soon (soon), soon! 4XX is publishing his folded dipole, getting it all nice and shiny for the 6 meter season. 4KK promises to be active this year too with big arrays, 4H and 4H2 are getting more power on 40 these days, and 4H2 is getting new equipment recently (40A seems to fit in the top).

49Q is going to get on up to after eleven years. I think he's home in UK as Fraser, got his license in 2nd August 1959, and a telegram the same night telling him what was on. Never pressed his key or made voice into his mike, now knocking on the door to see if he's still there. He's come to him 4 times now, went to Melbourne and took a load of portable and a couple of parts of clothes. Kept ahead with 4XN and 4RF and worked a lot of the gang on the way down. 49Q quite doing anything spectacular.

not holding my time.
With the exception of one year I have completed two years as
secretary for this Division. I have been greatly
assisted in the compilation of the notes during
that period by (EL 4KW, 4KW, 4XJ, 4BZ, 4ZE,
4HJ, 4KX, 4LX and 4CC), to each of whom I extend
my thanks. The present situation has changed
but has not even so far caused me to lay aside
the notes. I have now come into the hands of
someone who has more time for Ham Radio activity
and, in particular, to someone who is better able
to attend the monthly meetings and have a closer touch
with Central. During my term I have attended
100 miles a month to attend meetings, but am
now finding this a little too much. I have enjoyed
writing your notes and hope I have brought something
of interest to our members.
I am sorry to see you go and your continued
operation and thanks for having me at your place
each month during the past two years, '78 and all
the best—V.R.A.S.

SOUTH AUSTRALIA

The monthly general meeting for August was held to a representative gathering at the club rooms, the guest speaker being Mr. Clem Tillberg (SGC), who had selected "Cryogenics" as his subject. This was a most interesting talk. In this he has subjected us to a series of notes, he possesses that most prized attribute among lecturers, the ability to express in simple language the complex theory or formulas associated with his subject. He has the ability to make it all seem so simple. He brought along two or three converters that he had constructed along the lines discussed in his lecture, and judging from the number of questions and the discussions that arose later, it would be no stretch of the imagination to say that the evening was a qualified success. At the Kulpala proposed the vote of thanks which was received with enthusiasm. One point which Lee stressed will bear repeating, and that was that it was a great pity that this country is not due to the lack of interest in science, that he has not far from the city hall given free public lectures and the instructive question and answer period which always follows. This is a question period which has from time to time given much food for thought to Council, and no master from whom to learn if it is located at no suitable answer has as yet presented himself. If any member of our society can find a suitable solution to this problem he will be welcomed with welcome arms by all concerned. Just in passing, congratulations to a man view of any suggestions regarding recordings of the lectures, or anything along similar lines. (Such interpretation is based upon the basis of an article for this magazine, where both city and county members who were absent from

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Among the welcome visitors were SUX (Kulapura), SVN, 5KL (Clare), SLH (Port Augusta), 4CD (Port Augusta), SFP, H. Eckerston and T. B. We. To these visitors, some of whom are members of our Society, we say, "Well done, and to those that are not members we say, "If you have found us a decent bunch of fellows, well then join up and be one of us." Remember that if you do not like us, then get out all together and they can do to you what no one's business. But we are only as an individual, but collectively, well that is a horse of another colour.

I was quite impressed with the speed and agility with which Joe McAllister found a blackboard duster when asked who was one in Cleon. The words had barely left his mouth when another duster and I can say that Joe must have had it up his jumper. SJK appeared to thoroughly enjoy the lecture, at least his gentle snore gave that impression, and when Norm Colman jabbed him in the ribs, Jim was up, very quickly and said "I think that a half hour was pretty well better than a whole hour of hemostatic." When he was eventually released when he was, he disappeared down inside of his overcoat in complete embarrassment.

The new President, E. Barber (S.M.D.), having been successful in his foul purpose of the previous meeting, made no delay in taking the chair and in a few well-chosen words announced that the sentiments being shared by all members present. With the obvious anger in his voice, the President also thanked the Vice-President for stepping down, thereby causing a breach at the previous meeting, thereby causing several members to titfer audibly, as my spirit has been greatly grieved to see the President, Dr. J. H. Stott, released from his office.

one or more pointed cases matter little.

John Sherrid (ex-SJA, now in England), writing to Joe McAlister, says that he is now domiciled in London, Park Lane, Surrey, and houses before long will be on the air with a G call. He makes no claim to television and says that it has no clarity and if fair equalization is applied to any home movie and also said that he had viewed a cricket match in his sitting room comparable or better than he has viewed some matches in the grandstands. As a matter of interest he quoted the price of his television set as being

News also to hand of Dr. Ross Adey (ex-*AD*, now *GSPC*) to say that all is well and that he is looking for VHF contacts on 10 metres. He also said that 5PS is putting in a signal into G band that has to be heard to be believed, well, he did not say that exactly, but I know that he would have said it if he had thought of it. Cheering Ross, and all here wish to be remembered to you, and my father's chest is still failing.

STL forwarded on to me a letter he had received from STL in connection with a misdirected QSL card. In the letter, STL wished to be remembered especially to the STL crew at the STL QSL office. I am enclosing a copy of the mail. This was passed up with my own importance a few days ago. I have now a dictionary which said that STL meant "odd or queer" and now I am not too sure of myself. Oh well, he had not even addressed a QSL with my call signs Barber when he wrote the letter, so, what else can I expect?

The Remembrance Day Contest has come and gone again, and many are now licking their wounds and reflecting on what they could have grabbed if only more contestants had been there. A wake up to several little points. Anyway, it was a whale of a good time and appeared to be a success. To be quite frank, a number of VFW boys (including myself) were not too sure, did so, not because they are biased on Contests, but simply to pull their weight for their State, and all those that did enter all agreed that it was a fun day and that they would have participated if it were valid. I confess I participated to \$4. Me, phone, and in common with many others, did not hear a VERA throughout the Contest; don't know why, just out of those things I suppose. I managed to get a few things off my chest, though, and gave me intense satisfaction. "Roop" was dashing hither and thither, handing out and receiving \$800, until his voice was nearly bursting with excitement. He was a wild man, with wild hair and beard, and he screamed and yelled as if he had sat on the wrong end of a garden rake. He was definitely cut to the quick, and I felt sorry that it had fallen

Incredibly, quite a number of people, not all Aussies, seem to like the stickybeaks between THEM and SGP as soon as they get a chance. Listening to a few myself, I am convinced that the reason for their "stickybeaking" is only to hear what construction "Roop" will put on the twelve o'clock ABC news. On two occasions that I heard him, he said, commenting on a cloudburst in Sydney that day, "Water is flowing over the tops of the parked cars in Pitt Street, and all the suburban houses have water flowing over the chimneys," and re-

WILLIAM Street traffic is blocked with snow three feet high." "Boo-hoo," how could you!

Our new Divisional Secretary, 5XU, has as yet not sufficiently recovered from his recent illness, so there is some suggestion of a *sous-adjoint*. In his absence, our ex-secretary, 5MD, has consented to carry on until Gordon has recovered. It looks to me as if I have a chance to receive that letter from him after all. We all hope that Gordon will soon be well again and also hope that the trip to the hospital will not materialise.

5MA can now be seen at club meetings wearing

a huge crown on his head upon which is written "THE KING, King of the Butchers," and below it in smaller letters "the accident." What has happened to him lately—including 1000/1000 framing, three filter condenser and sundry other articles. Aside from this, Fred has nothing further to report. G&W has been fairly active on 48 and has just completed a new serial unit which includes all round or him. He is also building new ways to receive and also a new Harry is settling down into his new job at the second best broadcasting station in the State, but the telephone siren is not treating him too well. The first ten years are the hardest; I know.

There will be still two years to go.
SBC is going to have holidays down at Victoria Harbour with portable rig down, and when I bumped into him down there he was raving about the almost perfect conditions that he has found at building sites to have houses and looking forward to getting back to work again. All signs point to the fact that it won't be long now. My friend of the Berri Co-op, Warting Shd, Murray Nicholson, is sitting for election. I hope he's having his fingers crossed for you Murray.

a cutting from the "Short Wave Magazine," and now I know where a certain President disappears to now and again. I quote: "We recently had the pleasure of a personal QSO with Commandante Marcelo Barbieri (LA1BQ) to take over his command at short visit. Major Barbieri is giving his command a short rank in English, in favor of the Radios Club Argentina. Major Barbieri was unfortunate enough to leave behind at the airport all of his photos and other items of Amateur Radio." Dear god, you get it? and I will bet my life that this Major Barbieri spent a half an hour running down his Vice President Colonel Paroncini to all who

would listen. I am all I have for this month, for some unexplainable reason, my mother-in-law Mr. Gambler is in the land of the missing, and also the same applies to XL who has apparently broken down under the strain. And now as I have been down with the "flu" and don't feel quite 100 per cent yet, perhaps it is all for the best. I hope Gorden, Bertie and unfortunately gone to Shaw Road Hospital for observation. Here's hoping that he will be home soon.

WESTERN AUSTRALIA

The August meeting of this Division was held in the Institute Rooms, Padbury House, St. George's Terrace, on Tuesday the 13th, before a rather disappointing attendance. The business of the evening was conducted in what must have been record time, and the meeting was adjourned at half past nine o'clock, the previous meeting at home being discontinued at the President's feeling rather off colour after a gruelling at the dentist's that afternoon. Noticed Bon making a quick exit when the meeting adjourned in the usual ragnew.

638, acting as chief projector, treated the meeting to a screening of two excellent films, one on radio research and the other on transport problems in the United States. I believe all the civic authorities in Perth have viewed the latter film. Let's hope they learned something from it. A hearty vote of thanks to 638 was moved by the Secretary before the meeting closed at the early hour of 9.50 p.m.

Memorability Day Contest is over for another year. The results awaiting the results with great impatience. VK3 was well represented with approximately 65 stations operating. Conditions were not good by any means. The 50 metre band took the counts very early in the contest leaving little time for the exercise of some scores of stations. Boy was that QRM fierce. Several stations found the going so tough they didn't manage to make the necessary contacts. In the 1000-1500m range 1000 metres were able to operate in reasonable conditions and much good work was done on that band. Considering the relatively poor conditions, some remarkable scores were made by several VK3 stations. Notably, HEG, VVW, GDX, GPE, SGU and others. The main thing to do now is get the logs together. The Secretary and help build up the VK3 logbook. VK3 seemed to be very well represented and I think our male opposition will come from the USA. The USA team seems to be very strong again this year. The most popular number seems to be 1000m.

On Friday, 1st September, it was my privilege to be able to attend the Annual Diner of the Radio Society of Western Australia. A very well organised and successful function it turned out to be, and the Finance Committee of the Society is to be congratulated. Every speaker spoke of the splendid work being done by the Society in training their members for the A.D.C.P., thus keeping up a steady flow of new licences to swell the amateur ranks in W.A. These presents were taken back to the radio centre in the State by the remaining survivors of Frank Goldsmith's (F.G.) gang—Dad, G.W.B., Skipper Schönfeld G.W.B. and Ted Dodds G.W.H. Incidentally G.W.C. was the Secretary to the Society for just over 25 years, which made sure that he was in attendance. President of the Society for this Division, Mr. Alan Preston, was present, as was the Society, and many Amateurs in this State belong to both the W.L.A. and the Radio Society.

By the time this appears in print, the Country
versus City QSO Day will be but a memory. The
date is Sunday, 11th September, and the venue 4
metres. Roll up one and all, but leave just
couple of Kc/s. vacant for me, please!

PERSONALITIES

The R.D. Contest brought many a rig out on the shack, with disastrous effects on some local idle power supplies. ORG lost a part of 8860, and a power tranny. Russ finished up running the virus from the exciter power supply and working the transmitter with contacts. EPI had to drive the transmitter in the meantime. VEN got the trophy better submit a bill for the damage fellow. W5 Skipper Scheidt, recently celebrated his 75th birthday, but still as young as when he made his first contact many years ago. Skip has been interested in radio since about 1935 and has a wealth of stories to tell of his early days. Recently he treated himself to a commander receiver and can be heard on 10 and 40 metres. W5E heard trying some s.s.b.m. on a week or so ago, am sure didn't have been back on a.m. Didn't you like it or did you like it like Dick?

CIT still working on 80 and occasionally venture down to 60-65 W. It's been 10 and occasionally venture very long absence from the air. Putting out a nice signal John. Most have the dual beam working. RTR finally turned up in Coe and with two watts a very strong signal into Perth SWZ now on holidays and is causing quite a stir. I am sure he will be back. Contacted Harry from Lakewood (ex-Malcolme) recently and the seven watts were getting down to Perth quite well. 66A will be back in the near future. If these notes are printed. Looking forward to your comments Bill, even if it does mean more QRM for the Orlando gang. We can take it, even if my receiver sucks.

" 6DJ still very active on 40 and is keen enough to set the alarm for 5:30 a.m. or thereabouts to work the Europeans on that band. Winter time too. How do you do it? The getting up part, I mean 6RS back from holidays down at Mandurah and all ready for another year's toil. Before going away, Ron did some high pressure work on the

Bendix Tx and just finished in time to use it on the R.D. Contest. 6DD very quiet these days; rumour has it that the royal and ancient game of golf has nearly supplanted radio as far as Harry is concerned. 6HLL has disappeared and now portable gear on 40, 30, 16 & 6 meters, installed in the family buggy. Just don't know whereabouts Harry went for the vacation, but he has been heard and worked on 40, 6AG, OAC, Secretary, is away on a business trip up the North West. Last heard of from Meekathara.

This month I will have to blame the lack of activity on the various bands for the scarcity of news. That lack of activity is no doubt due to the very poor conditions prevailing. Once again, if you have any items for this column, let me know. I'll do the rest—Cheerio.

TASMANIA

Activity amongst the southern members for the month of August has been relatively quiet with the exception of the Remembrance Day Conference when most Hama did their best for our fair State. From what can be gathered some excellent secretaries and the addition of the North and Northwest Hama, good word should result. Unfortunately some operators made wrong numbering mistakes so this mistake can easily occur even in the best circles. Several members were fortunate to receive

As additional members of the W.I.A. to graduate with full membership is Dr. Sam Davis who has signed up with the W.I.A. to pass the recent G.C.L. examination. Plans are well in hand for the Hart shack and within a few weeks another member will be present at the SUMM. night meetings. Next time you run into T.S.M. ask him about the unofficial South American trip he made recently. He is the only marine operator who could copy a van fax press station and have his super at the same time.

Listening to 7BHF one recent Sunday night and was curious of the f.b. signal which was received at this end. Thought it might have been my receiver, but I will have to admit the transmission was faultless. Congratulations, Brian. Believe "Aker" Anderson is a noted authority on the air plane and you've even made the check by 7BHF. Was puzzled at the lack of output so upon opening the case, believe it or not, found our mate had forgotten he had taken the insert out; you beaut.

For those not so financial and desirous of a radio receiver, suggest you walk past certain Ham's store in the principal Service area after six p.m. Anything from a mantle receiver to a combination radiogram can be obtained, suggest you leave your ARSSS out one night Max and see what happens.

A new call to most is 7BWH which is "operated" by an Army Signal Club and is located at "Buderim". No calls, D.L.A. stamping, no foreign calls listed in the log. Several well-known Hams are in the Unit and so another "radio hobby club" has been formed.

A meeting was convened by TAB with the purpose of forming a Working Party. This would be a great benefit in fostering Amateur activities in this area as one of their aims is to conduct A.O.C.P. classes which should increase W.I.A. membership. Most of the Hams in this intended area find it most difficult to attend Institute meetings at Launceston, owing to the long journey necessary.

It was whispered Johnnie Grace has now descended from the remoteness of 144 Mc. to 40 metres and now transmits on 7BHF. He is operating in a particular band. TAB now works exclusive DX in the form of a Q on TAB and was received at 88 p.s. Was a surprise until I found the "G" was marine mobile in port at Hobart.

As those notes have been prepared prior to our September meeting TAB intended the Lecture will be given by Mr. Turnbull, continuing his previous lecture. This should prove interesting as a panoramascope will be exhibited and how the c.r.o. can be used in the checking of receivers. Discussion regarding future meetings and amateur practice will be another major topic, so how about leaving the fire-side armchair and enjoy the cozy comfort to be had at these meetings?

NORTHERN ZONE

Seems to me that last month I tried to run 30 days ahead of myself and started the August meeting before it happened. Obviously should have read July, sorry, but now we can talk of August. Our meetings seem to be drawing bigger and better crowds as they go on and this month was no exception. All present enjoyed the technical talk and informative talk by TAB on the whys and wherefores of a modern h.e. station. Chris is naturally very well fitted to discuss such matters being engineer at one of our local h.e. stations and the material presented was very interesting. A vote of thanks was also proposed by TAB who is by way of being in the opposition, but very friendly opposition it seems was carried by acclamation.

Well the 1940 R.D. Contest is now but a memory and what a memory! The pounding those poor bands took from 7BQ and others in the first few days rolled in one after the other, yet most stations turned up to play their part for their State and pay tribute to the memory the contest perpetuates. Judging by the activity some really bumper scores were to be turned in and the final result had to be close.

Activity apart from the R.D. Contest has been somewhat desultory during the month. 7BQ has been flying up on 6 getting ready, no doubt for the season to commence. The main occupation at TAB seems to have been blocking transmitters off the second hand Col. working on the usual sequence of three, took one from the junk box and threw it out for insurance, but no good, another one popped which just goes to show what a cruel thing fate is. A new receiver for 6 and 8 was starting to come from the work bench and I, for one, am closely following results with an eye to a future similar piece.

Was walking out Lyttondale Station, a way some days ago and fully occupied as to which GTR had been put in 7BHF and hence an amazing collection of arrays met my eye; beams of all sorts and sizes, feeders and all the trimmings. I stood and gazed and wondered if I were a signal which of the maze I would choose to get myself into and

reach the ears of the operator. However, judging by the results, they do sort themselves out very well. This month we have lost to the zone the person of 7NA. Noel has been transferred to VK5 and will we hope be heard from there. While not very active on 7BHF, we can still call him in the odd place that he did not attend and he will be missed by us all. Good luck in the new State, Noel, and it's been nice meeting you.

7HY, TDB and TLE all were in on the R.D. Contest for a few contests and out at Longford TAB kicked off very well, but struck receiver trouble I believe—tough luck Bill. The expected card from VK1ADES, mentioned as being a hopeful in the batch, arrived so far as we are on waiting list; a compensation for TLE and myself did arrive however this month to the shape of FNSAD long since written off as one of the "won'ts". DX is showing a slight improvement although still very poor. The DX prediction chart for September looks interesting so maybe 'er the month is out, things may be well on the up grade.

So, once more it's curtains and time to remainder. The day is here for TAB for fifteen years and a supply of rabbit's feet and lucky charms will be available at the door at a small charge, proceeds to go to the society for destitute Hams—as if there are any other sort!

CORRESPONDENCE

The opinions expressed in these letters are the individual opinions of the writer, and do not necessarily coincide with those of the publishers.

CONTEST RESULTS

Lascelles Ave., Beaumaris, S.A.

Editor "A.R.", Dear Sir,

I have read, with interest, the rules for the 1940 V.K.ZL Contest, and could not help smiling at the heavy print. I have a copy of the rules for June, November, 1940. Isn't there a rule 13 missing requesting the Contest Committee to return results by a definite date?

Well seriously, the 1940 Contest—handled to ZL—was a success. I think that's what; results being published in a rather sketchy manner, and only for V.K.ZL districts about 12 months after.

In 1949 I really had hopes that VK5 would be quicker on the job, but alas, 13 months have gone by and no sign of Contest results.

For the fun of the Contest is lost with that lag in publishing the result, and an effort should be made to get the results in say three to six months. Of course it may be said that even the A.R.H.L. is struggling in spite of all their staff and facilities, but nevertheless the high scores are gratifying.

Could not the best brains in hamdom be asked to devise a new basis for Contests which simplifies and reduces checking work?

I remember an Editorial some time ago asking for views on Contests in general and while I am on the subject, I can mention that I believe there is a need for a more active Contest Committee, particularly in the big ones which have been established for some time and are well supported. I don't think the average man can manage to participate in more than two or three such year and send the logs plus a few in.

I cannot conclude this letter without expressing my appreciation for the promptness with which the "A.R." arrives every month. In fact I am approaching the mail box with utmost confidence to look for it. If I could only find that test result!

—F. G. HAAS, VK5PH.

[No one understands the problem of having Contest results available within a reasonable period after a Contest than does Federal Executive, but the task is a slow one. We have the idea that of "interested members to help" until such time as a Contest Committee is formed to keep Contest matters up to date. Federal Executive agree with the criticism here and them and despite a stand taken by the Victorian Committee, who felt that only four interested members with Contest experience who would take over the responsibilities of putting "this contest business" on a sound footing, to date no definite results have been achieved. Many thanks are due to those building up old files of work of efficiency which should exist. Can you—and you—and you, do something NOW! We need four experienced contest members to form a Contest Committee in conjunction with General Business No. 6 of the 1940-41 Annual Convention. Let's hear from you—Federal Executive.]

BRAILLE MAGAZINE

"Grand View," Cliff Drive, Katonah, Editor "A.R.", Dear Sir,

In response to the paragraph which appeared in the June issue of "Amateur Radio," concerning the publication in the United States of a new

magazine in Braille, I wrote to the address given and have received in reply a letter, a copy of which is appended below.

I have also forwarded a copy to the New South Wales Division of the Institute, and I would suggest that all concerned should give such publicity to this matter as is considered necessary throughout all Divisions.

The first issue of the magazine referred to in the letter has not yet come to hand, but when it does so I shall inform you as to the general nature of its contents.

WILLIAM J. EICH, VK1ACP.

Dear Bill,

Received your letter inquiring about the new Braille Magazine for Blind Amateurs today and very pleased to inform you about it.

It is called the "Braille Technical Press," and the first issue was released in March of this year. It is a Radio and Electronic guide published monthly by the Institute. Edited by Robert W. Gunderson, Vice Executive, Office of the W.A.R. Waring Avenue, New York City, N.Y. New York, U.S.A. The cost of the publication is six dollars a year, and it will be sent to blind hams, short wave listeners, sound engineers and servicemen anywhere in the world.

We hope to reach all blind persons interested in radio, whether they can read the subscription rates or not. Of course it is a tremendous project and costly one, but it is already off to a good start. Your name has been placed on the subscription list, and you soon will begin to receive copies. And remember your copy is copy righted. When you station your desire to continue to receive the publication, let you read Braille. This is important as those not answering will be dropped.

Will you kindly inform the official organ of the W.I.A. that the publication want to press in March and that we are anxious to hear from all blind Amateurs—short wave listeners and servicemen who read Braille.

After receiving and reading the "H.T.P." we will welcome any suggestions or criticisms you may have to offer. I am serving on the board of directors of the W.I.A. and will be in touch with the W.I.A. after short wave listeners and Radio Engineers, will set the policy of the magazine.

At the present time I operate only on 10 metres, both phone and c.w. using a Hallicrafters HT5 transmitter running 100 watts and a three element beam, also using a Marconi BC200 receiver with a speaker and headphones. I am planning to erect a beam for 10 this summer. I have part time employment at a metallurgy plant and have a guide dog to take me back and forth from work.

It will be greatly appreciated if you will send along any information that you may have on blind Braille readers. If you have any ideas, please write either in Braille or print. Here's hoping you will receive the magazine soon and enjoy it also, and that we may meet on the air some day, very Y.S.—EVERETT A. ERICKSON, WIN1M, 3 Oaklands Height, Bethel, Connecticut, U.S.A.

HAMADS

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WANTED—AMR200 Components and Dust Covers for Receiver Coil Box and Power Supply. T. D. Hogan, 127 Oakleigh Road, Carnegie, S.E.9, Victoria (Phone: UM 1732).

WANTED—Good VCR140 C.R.T. Tubes. G. Millerd, 18 Ward Street, South Melbourne, Vic.

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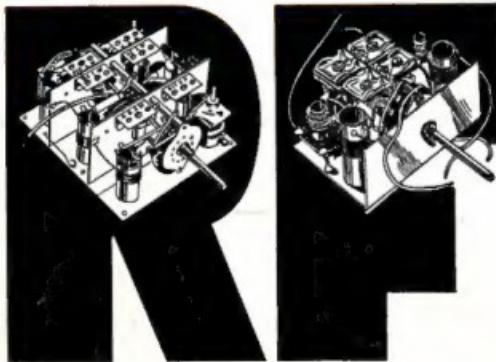
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